

**GUJARAT ELECTRICITY REGULATORY COMMISSION
(GERC)**



**Annual Performance Review for FY 2009-10
&
Aggregate Revenue Requirement for FY 2010-11**

For

Torrent Power Limited

Case No. 988/2010

31st March 2010



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(GERC)**

AHMEDABAD

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ABBREVIATIONS

AEC	Ahmedabad Electric Company
AMR	Automated Meter Reading
A&G	Administrative and General Expenses
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
ASTM	American Society for Testing & Materials
Avg.	Average
BIS	Bureau of Indian Standards
BPL	Below Poverty Line
CAGR	Compounded Annualized Growth Rate
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGP	Commercial General Purpose
CIL	Coal India Limited
DoE	Diversion of Energy
EI	Electrical Inspector
FPPPA	Fuel Price and Power Purchase Adjustment
FY	Financial Year
GCV	Gross Calorific Value
GDP	Gross Domestic Product
GERC	Gujarat Electricity Regulatory Commission
GETCO	Gujarat Electricity Transmission Company
GFA	Gross Fixed Assets
GIS	Geographical Information Systems
GLP	General Lighting Purpose
GUVNL	Gujarat Urja Vikas Nigam Limited
H1	First half of the financial year i.e. from April to September
H2	Second half of the financial year i.e. from October to March
HT	High Tension
HTMD	High Tension Maximum Demand
HVDS	High Voltage Distribution System
IGP	Industrial General Purpose
kCal	Kilocalorie
kWh	Kilowatt Hour
LTMD	Low Tension Maximum Demand
LTP	Low Tension Power
MTL	Meter Testing Laboratory



MYT	Multi Year Tariff
NABL	National Accreditation Board for Testing & Calibration Laboratories
NCV	Net Calorific Value
O&M	Operation & Maintenance Expenses
PAF	Plant Availability Factor
PLF	Plant Load Factor
RGP	Residential General Purpose
RoE	Return on Equity
R&M	Repair and maintenance Expenses
SEC	Surat Electric Company
SECL	South Eastern Coalfields Limited
SHR	Station Heat Rate
SLC	Service Line Charges
TPAL	Torrent Power AEC Limited
TPL	Torrent Power Limited
TPL-D	Torrent Power Limited – Distribution
TPL-G (APP)	Torrent Power Limited -Generation (Ahmedabad Power Plant)
TPGL	Torrent Power Generation Limited
TPSL	Torrent Power SEC Limited
TS	Temporary Supply
UI	Unscheduled Interchange
YoY	Year on Year



**BEFORE THE GUJARAT ELECTRICITY REGULATORY
COMMISSION AT AHMEDABAD**

Case No. 988/2010

Date of the Order: 31st March 2010

CORAM

Dr. P. K. Mishra, Chairman

Shri Pravinbhai Patel, Member

ORDER

1 Background and brief history

1.1 Background

Torrent Power Limited (herein after referred to as TPL or Petitioner) has filed its petition under Section 62 of the Electricity Act, 2003 read with Gujarat Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2005 (hereinafter referred to as 'Terms & Conditions of Tariff') and Gujarat Electricity Regulatory Commission (Multi Year Tariff Framework) Regulations, 2007 (hereinafter referred to as 'MYT Regulations') on 15th December 2009 for annual performance review (APR) of FY 2009-10 and determination of tariff for FY 2010-11 for generation and distribution businesses, under the MYT Control Period FY 2008-09 to FY 2010-11.

The Commission admitted the petition on 4th January, 2010. Subsequent to the admission of the petition, the Commission undertook a technical validation of the petition and assessed that additional information was required from TPL. The Commission



accordingly issued a letter on 28th January 2010 directing the Petitioner to submit the below mentioned information.

- Form D4 and Form D5 as per the Regulations
- Status on compliance of directives issued vide Commission's Order dated 9th December 2010
- Fuel bills (coal, secondary oil, gas) and lab test report clearly showing gross and net calorific value of coal
- Break-up of coal cost into cost from CIL, freight cost and other cost
- Copy of fuel supply agreement for coal linkage signed with SECL (which came into force since April 2009)
- GUVNL billing details for H1 FY 2009-10
- Details of UI transactions
- Security deposit opening balance for each distribution area
- SUGEN power: Total generation and revenue earned from sale in open market from the 800 MW allocated to Ahmedabad and Surat license areas
- Challans of Advance Tax paid
- Electrical Inspector certificate for completion of capital projects completed during the period of April to September 2009
- Non-Tariff income: Item-wise break-up
- Revenue from short term open access if any

The Petitioner submitted the above mentioned information to the Commission by 2nd March, 2010.

1.2 Torrent Power Limited (TPL)

Torrent Power Limited (TPL), a company incorporated under the Companies Act, 1956 is carrying on the business of generation and distribution of electricity in the cities of Ahmedabad, Gandhinagar and Surat. TPL had assumed the business consequent to the amalgamation of Torrent Power AEC Limited (TPAL), Torrent Power Surat Limited (TPSL) and Torrent Power Generation Limited (TPGL) with Torrent Power Limited.



Besides, TPL also engages in other businesses which are not regulated by the Commission.

TPAL was a licensee under the provisions of the Indian Electricity Act 1910 and TPSL was a sanction-holder (in terms of the sanction granted by the Government of Gujarat) under the provisions of the Indian Electricity Act 1910. Torrent Power Limited is a deemed licensee for distribution of electricity under Section 19 (1) (d) read with Section (19) (1) (i) of Gujarat Electricity Industry (Reorganization and Regularization) Act 2003 and under Section 14 of the Electricity Act 2003. The Commission had granted approval to the transfer / assignment of licenses granted to Torrent Power AEC Limited and Torrent Power SEC Limited so as to incorporate the name of TPL as licensee in place of TPAL and TPSL in the respective licenses.

The approval of the Commission was subject to the order and directions of the Hon'ble High Court of Gujarat on the scheme of amalgamation / merger of TPAL, TPSL, TPGL and TPL. The scheme of amalgamation has been approved by the Hon'ble High Court of Gujarat vide its order dated 11th September 2006.

1.3 Commission's Order for the first control period

Torrent Power Limited had filed its petition under the Multi Year Tariff framework for FY 2008-09, FY 2009-10 and FY 2010-11 on 8th May 2008 in accordance with the Gujarat Electricity Regulatory Commission (Multi Year Tariff Framework) Regulations, 2007 notified by the Commission. The Commission, in exercise of the powers vested in it under Sections 61 and 62 of the Electricity Act 2003 and all other powers enabling it in this regard, issued the Multi-Year Tariff order on 17th January 2009 for the control period comprising FY 2008-09, FY 2009-10 and FY 2010-11. The Commission also took into consideration the submissions made by TPL, the objections by various stakeholders, response of TPL, issues raised during the public hearing and all other relevant material while issuing the tariff order.

1.4 Commission's Order on APR of the first year of the control period



The Petitioner filed its petition for Annual Performance Review (APR) of FY 2008-09 and for Annual determination of Tariff for FY 2009-10 on 12th May 2009. Based on preliminary scrutiny, evaluation and technical validation, the Commission admitted the petition on 6th June, 2009. The Commission, in exercise of the powers vested in it under Sections 61 and 62 of the Electricity Act 2003 and other provisions enabling it in this behalf, and after taking into consideration the submissions made by the Petitioner, the objections by various stakeholders, response of the Petitioner, issues raised during the public hearing and all other relevant material, issued the order on APR of FY 2008-09 and tariff determination for FY 2009-10 on 9th December, 2009.

1.5 Admission of the current petition and public hearing process

The Commission admitted the current petition of TPL for annual performance review (APR) of FY 2009-10 and determination of tariff for FY 2010-11 for generation and distribution businesses (Case No 988 of 2010) on 4th January, 2010.

In accordance with Section 64 of the Electricity Act 2003, the Commission directed TPL to publish its application in the abridged form and manner to ensure public participation.

The Public Notice was published in the following newspapers on 8th January 2010 inviting objections/suggestions from stakeholders on the petition filed by TPL.

1. Indian Express – Ahmedabad Edition
2. Sandesh – Ahmedabad Edition
3. Gujarat Samachar – Ahmedabad Edition
4. Divya Bhaskar – Ahmedabad Edition
5. Gujarat Mitra – Surat Edition
6. Sambhav Mitra – Ahmedabad Edition
7. Jansata – Ahmedabad Edition
8. Jaihind– Ahmedabad Edition

The Petitioner also placed the public notice and the petition on its website (www.torrentpower.com) for inviting objections and suggestions on its petition.



The interested parties/stakeholders were asked to file their objections and suggestions on the petition on or before 8th February, 2010.

TPL / Commission received objections / suggestions from 15 respondents. Out of those 15 objectors, 13 were present for the public hearings conducted on 23rd, 24th February and 3rd March, 2010.

The issues and concerns voiced by various stakeholders during the course of the public hearing as well as the written submissions have been carefully examined by the Commission.

The details of the organizations and individuals who have filed their objections / suggestions on the petition are given in Annexure 9.2. The details of objectors who had participated in the public hearing are given in Annexure 9.3.

1.6 Contents of the Order

The order comprises of nine chapters as under:

1. The first chapter provides a background regarding the Petitioner, the petition filed and details of the public hearing process.
2. The second chapter provides detailed account of the public hearing process, including the objections raised by various stakeholders, TPL responses and the Commission's views on the responses.
3. The third chapter details the process of annual performance review of FY 2009-10 for the generation and distribution business.
4. The fourth chapter analyses the Aggregate Revenue Requirement for generation and distribution business for the FY 2010-11.
5. The fifth chapter discusses the tariff philosophy and design approved by the Commission
6. The sixth chapter deals with compliance of existing directives and issue of fresh directives
7. The seventh chapter deals with computation of Wheeling Charges and Cross Subsidy surcharge
8. The eighth chapter contains the tariff schedule



9. The ninth chapter is the Annexure which contains a description of computation of variable cost of generation and the list of objectors

1.7 Approach of this Order

In this order the Commission has analyzed the petition with regard to the Annual Performance Review for FY 2009-10 and Annual Tariff Determination for FY 2010-11. Under the MYT Framework, the Commission had projected the ARR for the Petitioner for each year of the control period in the MYT Order issued on 17th January, 2009. The MYT Regulations provide for annual performance review based on the actual expenses incurred by the Petitioner compared with the trajectories approved under the MYT Order.

The first year of the Control Period i.e. FY 2008-09 has already elapsed and Commission has already undertaken a performance review for FY 2008-09 in its order issued on 9th December, 2009. In the current petition, TPL has approached the Commission for Annual Performance Review for FY 2009-10 and Annual Tariff Determination for FY 2010-11. Considering this background, the Commission has undertaken an Annual Performance Review for FY 2009-10 based on the actual information submitted for the first six months of the FY 2009-10 and the analysis of the projections submitted by the Petitioner for the remaining six months of the FY 2009-10.

In regard to the annual tariff review for FY 2010-11, the Commission has analyzed the projections submitted by the Petitioner.

1.7.1 Approach for APR for the FY 2009-10

Regulation 9.1 of the MYT Regulations provides that where the aggregate revenue requirement of a generating company or a licensee is covered under a multi year tariff framework, such licensee shall be subject to an Annual Performance Review (APR) during the control period. With regard to the scope of the APR, Regulation 9.3 of the MYT Regulations provides that the scope of APR shall include a comparison of the audited performance of the applicant for the previous financial year with the approved forecast for such previous financial year; and a comparison of the performance of the applicant for the first half of the current financial year with the approved forecast for the current financial year and any other relevant details.



Accordingly, the Commission has now undertaken a review of the performance for the FY 2009-10 based on the submissions of the Petitioner. With regard to the computation of gains and losses for the FY 2009-10, it shall be undertaken when the audited accounts of the Petitioner are available.

1.7.2 Approach for ARR for the FY 2010-11

For FY 2010-11 which is the third year of the control period, the Petitioner has approached the Commission for revision of the Aggregate Revenue Requirement (ARR) and Annual Tariff Determination based on the APR of FY 2008-09, APR of FY 2009-10 and the revised estimates for the FY 2010-11. The Commission has reviewed the submissions of the Petitioner. The Commission has observed that revised components of the ARR for FY 2010-11 are different compared to ARR approved under the MYT Order dated 17th January, 2009.

The variance in the submission is primarily on account of the variance in the actual performance for the FY 2008-09 and the first six months of FY 2009-10. In the light of this background, the Commission has reviewed and revised the various components of ARR where considered fit. While considering the revision of the ARR, the Commission has been primarily guided by the following principles:

- Controllable parameters have been considered at the level approved under the MYT Order unless the Commission considers there are suitable reasons for revision of the same.
- Uncontrollable parameters have been revised based on the actual performance observed for the FY 2008-09 and the first six months of the FY 2009-10.



2 Response from Stakeholders

In response to the public notice inviting objections / suggestions from stakeholders on the petition filed by TPL for annual performance review (APR) of FY 2009-10 and determination of tariff for FY 2010-11 for generation and distribution businesses, under MYT Control Period FY 2008-09 to FY 2010-11, fifteen consumers / consumer organizations filed their objections / suggestions in writing. Out of the fifteen objectors who filed objections / suggestions, thirteen stakeholders participated in the public hearings. The objections / suggestions received, responses of TPL and views of the Commission are presented in the following sections of this chapter.

2.1 Awareness about own meters

Objections:

Objectors have submitted that consumers are not aware about option of having their own meter. Some objectors have also submitted that consumers are discouraged to purchase their own meters.

TPL's Response:

TPL has submitted that they are providing guidance to consumers who are approaching them for getting facility of own meter.

Commission's view:

The Commission hereby directs TPL to give wide publicity to the detailed procedure for having facility of own meter by consumers. The licensee should also provide information about third party independent testing of meters.

2.2 No need for tariff hike

Objections:



Objectors have submitted that TPL is a profit making company and hence there is no need for a tariff hike. Objectors have especially highlighted the high amounts of balance sheet profits, stock price and the dividend paid by the company as an indicator of the high profits that TPL is earning.

TPL's Response:

TPL has submitted that the profits shown in the Statement of Accounts has no relation to the Tariff Petition proceedings. The Tariff Petition and the Annual Report are filed under different statutes. Annual Report is prepared as per provisions of the Companies Act, 1956 while the Tariff Petition is made in accordance with the various rules and regulations framed by the Commission. The profit of the company shown in the Annual Report is an aggregated figure for the regulated as well as other businesses while the Tariff Petition deals with only the regulated business of the company.

Commission's view:

The gap / surplus determined in a tariff order cannot be directly correlated with the balance sheet profits of the company. The existing regulations provide for a 14% Return on Equity (RoE) for the regulated business of the Petitioner. If the actual profits of the company are not enough to cover the RoE, it results in a regulatory gap even when the company is showing profits on its balance sheet.

2.3 Reply should be in Gujarati**Objections:**

Objectors have submitted that TPL should file its replies in the Gujarati language for the objections filed by stakeholders in Gujarati.

TPL's Response:

TPL has submitted that the official language for the proceedings is English.



Commission's view:

Although the official language of proceedings is English, TPL should provide information / reply in Gujarati for the comments / objections received in Gujarati.

2.4 Commission is not competent due to absence of finance expert**Objections:**

Objectors have submitted that without a Finance member, the Commission has no competence to decide the tariff petition. Finance expertise is one of the compulsory requirements in a Member of the Commission. In this regard, the objectors have highlighted Section-84, Clause 1 of the Electricity Act, 2003 which states that:

Section 84. (Qualifications for appointment of Chairperson and Members of State Commission): --- (1) The Chairperson and the Members of the State Commission shall be persons of ability, integrity and standing who have adequate knowledge of, and have shown capacity in, dealing with problems relating to engineering, finance, commerce, economics, law or management.

TPL's Response:

TPL has submitted that it is not mandatory to have a finance member as the Commission may seek assistance from experts

Commission's view:

The Commission is of the opinion that Finance is one among the several expertises which a member may have. The above referred clause of the Electricity Act, 2003 should actually be read as:

"... dealing with problems relating to engineering or finance or commerce or economics or law or management".



Further, the Commission notes that as per regulations, the number of members of the State Commission is restricted to three. If, as per the objector, the above referred clause is read as:

“... dealing with problems relating to engineering and finance and commerce and economics and law or management”

... it may mean that there are five disciplines of expertise required amongst three members which is not practical. Further, GERC (Conduct of Business) Regulations, 2004 dated 25th August, 2004 provides that the Coram for the proceedings before the Commission shall be **two**.

The Commission would also like to state that it *is* seeking assistance of experts in the field of finance, wherever required, to analyze and process the applications / petitions in accordance with the various Acts / Regulations.

2.5 Introduction of tariff for BPL families

Objections:

Objectors have submitted that there is a need to introduce a separate tariff for BPL families in line with the GUVNL distribution licensees. There are a number of BPL families in the supply area of TPL who have to pay high charges due to absence of a BPL category.

TPL's Response:

TPL has submitted that the initial slab of existing residential consumers already provides for a lower tariff rate. The Commission may take a view in the interest of consumers while issuing an order in accordance with the statutory provisions.

Commission's view:

As per the Tariff Policy, tariffs for households below poverty line and consuming below 30 units per month need to be cross-subsidized. Keeping this in mind, the Commission agreed to introduce a separate tariff for BPL families in line with the tariff schedule of



other distribution licensees in the State. This has been done in the Ahmedabad as well as Surat distribution areas and shall be effective from 1st April 2010.

2.6 No uniform tariff for two separate licensees

Objections:

Objectors have submitted that there should be separate ARR and tariffs for the distribution areas of Ahmedabad and Surat. The two areas are geographically distinct, each with its unique usage pattern and distribution losses. Hence each area has its own revenue and cost profile thus resulting in a distinct gap / surplus. Approving uniform tariff for both areas as proposed by the Petitioner shall result in transfer of gap from one area to another. Further, objectors have submitted that TPL has provided the reason of optimization of costs as the basis for uniform tariff. According to objectors, such reasoning is unsound and illogical since uniform tariff has no relation with optimization of costs.

Objectors have also referred to the Commission's decision on the matter of amalgamation of TPL's generation and distribution businesses and transfer of licenses highlighting that the transfer of license and determination of tariff are separate matter and such transfer should not affect the interest of consumers. TPL holds two different licenses for the supply areas of Ahmedabad and Surat and hence there should be separate ARR and tariff for each of the areas.

TPL's Response:

TPL has submitted that in the MYT Order, the Commission has stated that the proposal for uniform tariff shall be examined in detail taking into consideration the difference in tariff to different categories at present in the two areas, the impact of uniform tariff on the various categories of consumers particularly in the present economic slowdown and recession, and appropriate decision on uniform tariff shall be taken later.

Further, TPL has submitted that commonness of operations brings in economies of scale in operations. Besides communicating a consistent ideology and corporate standards, having common operations and thereby common tariffs shall also help in optimization of costs in the manner mentioned below:



1. Common power procurement shall reduce redundant capacity and shall help in effective load management leading to optimization in power procurement.
2. Common usage of resources for running distribution operations shall result in reduction in operational expenses and improvement in operational efficiency.
3. Common power procurement for larger capacities through multiple sources will mitigate the fuel risk by ensuring a diversified fuel basket

Commission's view:

The Commission clarifies that in the MYT Order, the Commission has only stated that the proposal for uniform tariff shall be examined and appropriate decision shall be taken.

The Commission observes that TPL holds two separate licenses for the two areas of supply i.e. Ahmedabad/Gandhinagar and Surat. As per Section-2, Clause 17 of the Electricity Act, 2003, "distribution licensee' means a licensee authorised to operate and maintain a distribution system for supplying electricity to the consumers in his area of supply". The use of singular word for a Distribution Licensee and in his area of supply in the Electricity Act, 2003 implies that all the details/data are required to be furnished by Distribution Licensee area wise. The Commission also drew reference to its Order on petition No. 881/2006. The Commission noted the decision made under clause 9 of its Order on petition No. 881/2006 which is produced below:

".....merging of licenses is different from merging of companies. The two licenses are required to be transferred to the new company but will remain independent. There would be no change in the conditions of license or the areas of license..."

As indicated above even after the approval of the Scheme of Amalgamation, the governing conditions of license shall continue to remain applicable. Consequently, the Commission is of the opinion that the ARR and tariff for each area should be determined separately.

2.7 Applicability of different tariff rates for identical use of electricity**Objections:**

Consumers from Surat have represented that TPL is charging different tariff rates for identical use of electricity. They have cited the example of supply for textile embroidery machineries which have been categorised under industrial and commercial categories for different sets of consumers.

TPL's Response:

TPL has submitted that they are charging the industrial or commercial tariff on the basis of the circular issued by the Office of the Collector of Electricity Duty.

Commission's view:

In case of any individual complaints, the consumer should approach the Consumer Grievance and Redressal Forum (CGRF) for resolving issues of proper applicability of tariff category.

2.8 Action under Section 142 for non-compliance of directives

Objections:

Objectors have submitted that TPL has not complied with all the directives issued earlier by the Commission. Hence, action should be initiated against TPL under the Electricity Act, 2003.

TPL's Response:

TPL has submitted that it has not committed any willful default on the matter of compliance of directives issued by the Commission. The current tariff proceedings are purely a tariff fixation exercise which is completely separate from the punitive actions prescribed under the Section 142 of the Electricity Act, 2003.

Commission's view:

The Commission's comments on the status of compliance of each directive by TPL are elaborated in the chapter dealing with the compliance of directives.



2.9 Coal Transit Loss

Objections:

Objectors have raised concern over the failure of TPL to reduce coal transit loss. TPL has estimated a loss of 2.43% as compared to approved value of 1.40% for FY 2009-10. The objectors have requested the Commission to direct TPL to recover the costs of these losses from the coal supplier and the Railways instead of passing on the burden to the consumers.

TPL's Response:

TPL has submitted that neither the Coal supplier nor the Railways compensate it for the transit loss. The transit losses are incurred on account of uncontrollable reasons. TPL has reasoned that it sources indigenous coal from mines located more than 1600 kms away from the generating station. It has requested the Commission to allow the actual transit loss incurred by it as is allowed by other SERCs despite their utilities' proximity to the coal mines.

Commission's view:

The Commission has taken a note of the submissions made by TPL and has observed that TPL has estimated the transit loss for FY 2009-10 to 2.43% from the previous year's actual achievement of 2.73%. This demonstrates that there is a clear possibility of further reduction in the transit loss levels. The Commission has noted that though the regulations permit a transit loss level of only 0.8%, a higher transit loss level of 1.4% has been approved, considering the experiences from some of the other utilities in the country. Nevertheless, the Commission is of the view that a linear relationship between the distance over which coal is transported and the transit loss levels cannot be empirically established. The Commission, therefore, directs the Petitioner to ensure that the transit loss levels are contained within the levels approved under the MYT Order.

2.10 Blending Ratio

Objections:



Objectors have submitted that the increased cost of indigenous and imported coal and reduction in blending ratio from 72:28 to 64:36 has increased the variable cost, which puts additional burden on consumers. The objectors have requested the Commission to direct TPL to submit reasons for revision in blending ratio and to monitor quality and quantity of coal procured.

TPL's Response:

TPL has submitted that all the fuel linkages with CIL/SECL have been converted to fuel supply agreements from 1st April, 2009. This has not only resulted in a decrease in the allocated quantity of coal from 14.30 lakhs MT to 13.40 lakhs MT, but also impacted the quality and price of coal. The joint sampling of coal, which ensured better quality of coal at the receiving end, has been abolished. Even the sampling of coal at the loading end has yet to be operationalized by SECL despite the provision of the same in fuel supply agreement. Thus, TPL has submitted that it has no control over the quality of coal received. Further, SECL has stopped supply of coal from premium mines such as Churcha, thereby further reducing the calorific value of coal received. These reasons have led to an increase in the quantity of imported coal used, thereby changing the blending ratio.

Commission's Analysis:

The Commission notes that the overall blending ratio reduced from the overall actual achievement of 70:30 in FY 2008-09 to overall actual achievement of 58:42 in H1 FY 2009-10, which is a significant reduction. The actual achieved ratio is also much lower than the ratio of 72:28 approved in the MYT order.

Further, the Commission has reviewed the fuel supply agreement signed between TPL and SECL with specific focus on quality assurance aspects of the coal delivered. The Commission notes that there are clauses in the agreement which ensure the standard of quality of coal supplied to TPL. Some of these include declaration of coal grade, joint assessment of stones, compensation for stones above the size of 250 mm, joint collection and preparation of samples of coal for measurement of quality at loading end, purchaser's right to witness weighing of coal at loading end, etc. The Commission directs TPL to exercise all its rights under the agreement to ensure receipt of good quality coal. TPL must also make all possible efforts for making SECL operationalize joint sampling at the loading end which is already provided for in the agreement.



Directive

TPL is hereby directed to submit steps it would undertake to improve the blending ratio from the actual achievement of 58:42 in H1 FY 2009-10

2.11 SUGEN power**Objections:**

Objectors have enquired about the quantum of surplus power generated from SUGEN power plant and the revenue sharing mechanism for sale of such power.

TPL's Response:

TPL has submitted that it shares the profit earned from the sale of surplus power from the allocated capacity on equitable basis in accordance with guidelines issued by the Government under the provisions of the Electricity Act, 2003. The revenues earned from such sale gets adjusted in the power purchase cost

Commission's Analysis:

During the course of processing of TPL's current petition for APR of FY 2009-10 and ARR of FY 2010-11, the Commission had directed TPL to submit details regarding sale of the surplus SUGEN capacity allocated for the distribution areas of Ahmedabad and Surat. In its letter dated March 02, 2010, TPL has submitted that it has sold 149.21 MUs of such surplus power to earn revenues of Rs. 23.22 crores (effective rate of Rs. 1.56 / kWh) during FY 2009-10. TPL has stated that it shall share 50% of this revenue with the consumers of both the distribution areas. The Commission does not find any regulatory or policy basis for sharing of only 50% of the revenue earned. As the surplus power sale has been executed from the full allocated capacity of both the distribution areas, the Commission is of the view that 100% of the revenue earned from sale of surplus power should be allocated to the distribution areas.

Further, the Commission notes that TPL procured power from the merchant capacity of SUGEN when GUVNL unilaterally stopped supplying power to TPL in August 2009. This power being costly power (Rs. 5.33 per kWh), it has burdened the consumers of Ahmedabad and Surat. TPL neither informed the Commission before taking such a step nor sought its approval. The Commission directs TPL to inform it about any such steps it



takes in future which could burden the consumers. Further, in view of absence of GUVNL power, TPL should consider increasing the SUGEN capacity allocated to Ahmedabad and Surat.

2.12 FPPPA charges

Objections:

Objectors have submitted that the ARR of Rs. 1076.11 crores submitted by TPL against the approved value of Rs. 913.42 crores shall put burden on consumers. The objectors have requested the Commission to study details of FPPPA charges recovered from consumers before approving any increase in ARR.

TPL's Response:

TPL has submitted that the increase in gap is on account of variation in fuel prices which are beyond its control. It has stated that the revenue estimated for FY 2009-10 includes FPPPA charges recovered from consumers. TPL has clarified that it submits audited data on FPPPA charges to the Commission on a quarterly basis. TPL has further stated that the cost of electricity in the power market is quite high due to the demand - supply deficit of electricity. On these grounds, TPL has requested the Commission to carry out the truing up exercise with proper analysis of expenses and revenue.

Commission's Analysis:

The Commission is concerned about the high FPPPA charges recovered by TPL from consumers. The Commission has sought details of FPPPA charges from TPL and is analyzing the same. The Commission is reviewing and assessing the appropriateness of the charges recovered in FY 2009-10. In this order, the Commission has estimated the power purchase cost for FY 2009-10 considering the base level costs as approved in the MYT order and also removed the impact of FPPPA from the revenue side.

Directive

On the issue of demand supply deficit in the power market, the Commission hereby directs TPL to take all necessary steps for reducing power purchase costs. The



recommended approach is to execute long term supply arrangements which ensure certainty of quantum and price of supply. TPL is directed to submit the details and status of steps it has taken to secure such sources of power for assuring security of power supply to consumers of Ahmedabad and Surat.

2.13 Employee expenses

Objections:

Objectors have objected to the high employee expenses estimated by TPL

TPL's Response:

TPL has submitted that it is one of the best performing companies in its line of business. TPL's performance gets reflected in terms of various performance parameters such as lower distribution losses, higher reliability of power, lower transformer failure rate, etc. This has been achieved because of its employees who are one of the best in the industry and TPL makes all efforts to retain them. TPL has submitted that to retain such resources, it has to incur necessary employee costs for maintaining parity with the prevailing market condition in the power sector.

Commission's Analysis:

The Commission agrees with TPL that it is indeed one of the best performing utilities of the country. However, as per the GERC Multi Year Tariff Regulations, 2007, employee expense is a controllable expense over which the utility should exercise complete control. This should not be difficult for a good performing utility such as TPL. TPL should continuously strive to optimize and contain its employee costs within the limits approved in the MYT order.

2.14 Station Heat Rate

Objections:



Objectors have submitted that the concept of measurement of SHR on NCV basis does not exist. TPL has been measuring station heat rate in terms of NCV which leads to increase in fuel cost. The objectors have suggested that TPL computes fuel cost as per the heat rate arrived at by the Central Electricity Authority (CEA) and refund the extra amount recovered from consumers with interest.

TPL's Response:

TPL has submitted that the measurement of calorific value of coal on NCV basis has existed at Sabarmati plant for many decades. TPL estimates the NCV of coal for imported and indigenous coal in accordance with the formula specified by Bureau of Indian Standards (BIS) and American Society for Testing & Materials (ASTM) respectively. TPL has also stated that many utilities sometimes enter into commercial arrangements for supply of coal on NCV basis. Estimating heat rate on NCV or GCV basis does not alter either the requirement of coal or cost per unit thereof except corresponding change in arriving at the normative parameters. On the issue of refund, TPL has submitted that the difference in SHR arises only because of difference in method of measuring calorific value of fuel as on received basis versus as fired. This has been recognized and acknowledged by CEA in its study report. However, it does not amount to any variation in actual cost of fuel.

Commission's Analysis:

It is a well known fact that the industry practice in India is to define and calculate the operational parameters, including boiler efficiency and turbine cycle heat rate for coal fired stations on GCV basis. Accordingly, the operational parameters are invariably specified on GCV basis by the equipment manufacturers and other regulators. Specifying the heat rate on NCV basis apparently shows the station to be more efficient. The Commission is of the opinion that it is essential that TPL specifies station heat rates in terms of GCV. This also makes it easier to compare performance of TPL's generating stations with that of other generating stations in the country.

On the issue of variation in actual fuel cost, although the Commission agrees that specifying station heat rate on GCV or NCV basis does not impact the fuel cost, the heat rates specified till now by TPL have been on the higher side. The heat rates recommended by CEA are found to be lower than those estimated by TPL (after converting TPL's estimates to GCV basis). CEA, in its study report, has also stated that the method used by TPL to measure coal calorific value at the railway wagon end gives



a wrong value of SHR. Considering these aspects, the Commission has computed the fuel cost for FY 2010-11 considering the SHR on a GCV basis computed using the calorific value of coal measured as fired.

Directive

The Commission hereby directs TPL to estimate SHR on GCV basis and gross calorific value (GCV) of coal on as fired basis in future tariff petitions.



3 Annual Performance Review for FY 2009-10

3.1 Background

The Gujarat Electricity Regulatory Commission (Multi Year Tariff Framework) Regulations, 2007 (referred to as 'MYT Regulations') were notified on 20th December 2007. Under the provisions of these Regulations, the Gujarat Electricity Regulatory Commission (referred to as 'Commission' or 'GERC') notified the first Multi Year Tariff (MYT) control period as the three year period comprising of FY 2008-09, FY 2009-10 and FY 2010-11. Under the MYT regulations, for the specified control period, Torrent Power Limited (hereinafter referred to as 'the Petitioner' or 'TPL') submitted the projected Aggregate Revenue Requirement (ARR) for each year of the control year. The Commission undertook the analysis of the submissions made by the Petitioner and approved an ARR for each year of the Control Year along with the tariff for the FY 2008-09 vide its Tariff Order dated 17th January 2009. The first two years of the MYT Control period have elapsed and the Petitioner has approached the Commission for annual performance review for the FY 2009-10 and the determination of tariff for the FY 2010-11.

This chapter of the order deals with the Annual Performance Review for FY 2009-10 for the following businesses of Torrent Power Limited:

- Generation Business (TPL-Generation (Ahmedabad Power Plant), hereinafter referred to as TPL-G (APP))
- Two distribution licensees (TPL-Ahmedabad and TPL-Surat)

3.2 TPL – G (APP)

This section deals with the annual review of TPL-G (APP) for FY 2009-10. The Commission has undertaken the APR for the technical parameters as well the expense and income items based on the H1 actuals and other submissions made by the Petitioner.

The technical parameters of TPL–G (APP) are discussed below followed by the expense and income items.



3.2.1 Availability

Petitioner's Submission

The Petitioner has submitted that it has estimated the Availability of individual stations for FY 2009-10 after accounting for the annual planned shutdown to undertake maintenance & statutory inspections and the actual forced outages.

The outages schedule and the station wise Availability estimated by TPL-G (APP) for the FY 2009-10 are based on six months actual data. The submission by the Petitioner is provided in the table below.

Table 1: Outage Schedule estimated by TPL-G (APP) for FY 2009-10

Stations	Outage schedule (days)	
	Estimated by Commission in the MYT Order	Estimated by TPL-G (APP)
C Station	10	15
D Station	10	13
E Station	90	12
F Station	10	11
Vatva Gas CCPP	GTG-1 : 22 GTG-2: 16 STG: 15	GTG-1 : 22 GTG-2: 13 STG: 2

For FY 2009-10, the Petitioner has planned the following schedule for preventive maintenance and upgradation:

- C station for 15 days for life assessment of bunker condition;
- D, E and F station for 13 days, 12 days and 11 days respectively for boiler annual maintenance;
- GTG -1 for 1 day for gas turbine compressor washing and 21 days for GT generator inspection, HRSG annual survey and AVR retrofit;
- GTG – 2 for 1 day for gas turbine compressor washing, 2 days for STG up steam breaker replacement work and 10 days for GT stage 2 nozzle replacement; and
- STG for 2 days for up steam breaker replacement work.



Based on the above maintenance and up-gradation schedule, the Petitioner has estimated the following Availability.

Table 2: Plant Availability estimated by TPL-G (APP) for FY 2009-10

(%)

Stations	Availability		
	Estimated by Commission in the MYT Order	TPL-G (APP) Estimate	
		H1 Actual	FY 2009-10
C Station	95.05	95.01	91.85
D Station	94.73	99.01	94.65
E Station	73.63	99.95	95.93
F Station	95.36	98.51	95.07
Vatva Gas CCPP	93.81	99.38	96.25

As compared to the estimates submitted by Petitioner in the petition for the Order dated 9-12-2009, the Petitioner has revised upwards the Availability for all the stations except for F Station. The estimates have been revised on account of revised outage schedule due to the deferment of the planned capital expenditure from FY 2009-10 to FY 2010-11 and FY 2011-12.

The estimates of Petitioner for Availability are lower than H1 actuals for which the Petitioner has reasoned that it is due to scheduling of maintenance works during the low demand months of H2 i.e. during August to February.

Commission's Analysis

The H1 actual data for Availability, submitted by the Petitioner, is observed to be higher than the Availability approved by Commission in the MYT Order and in order dated 09-12-2009 except for station C.

Table 3: Actual Availability for FY 2009-10

(%)



Stations	Approved in the MYT Order	Approved in the Order dated 9-12-2009	Actual Availability for H1 of FY 2009-10	Estimated by TPL-G (APP) for FY 2009-10
C Station	95.05	95.05	95.01	91.85
D Station	94.73	94.73	99.01	94.65
E Station	73.63	73.63	99.95	95.93
F Station	95.36	95.36	98.51	95.07
Vatva Gas CCGP	93.81	93.81	99.38	96.25

The Commission observes that the Availability has increased mainly due to deferment of planned capital expenditure works for FY 2009-10 to FY 2010-11 and FY 2011-12. Further, the estimation for the whole year is lower than the H1 actual on account of the fact that most of the maintenance works are expected to be carried out during H2 on account of lower demand during these months.

Based on the above observations and the review of the submission made by the Petitioner, the Commission has accepted the revised estimates of Petitioner for Availability.

The summary of the Commission's analysis is presented in the table below:

Table 4: Summary of Availability approved by Commission for FY 2009-10

(%)

Stations	Approved in the Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
C Station	95.05	91.85	91.85
D Station	94.73	94.65	94.65
E Station	73.63	95.93	95.93
F Station	95.36	95.07	95.07
Vatva Gas CCGP	93.81	96.25	96.25

3.2.2 Plant Load Factor

Petitioner's Submission



The Petitioner has submitted the Plant Load Factor (PLF) for FY 2009-10 based on actual data for 6 months which is shown below:

Table 5: PLF estimated by the Petitioner

(%)

Stations	Estimated by Commission in the MYT Order	TPL-G (APP) Estimate	
		H1 Actual	FY 2009-10
C Station	93.84	91.03	88.33
D Station	93.37	101.44	96.28
E Station	72.71	102.21	95.74
F Station	94.34	101.00	96.01
Vatva Gas CCPP	87.97	95.16	91.67

The Petitioner has submitted that PLF mainly depends on Availability of the plant and drawal by the consumers which are highly uncontrollable in nature. The Petitioner has estimated the PLF higher than the PLF estimated by Commission in the MYT Order and the order dated 9-12-2009, except for station C as it is an old station. The higher PLFs are on account of increased Availability as described in the previous section. Further, the Petitioner has requested for incentive for increased generation over and above the normative PLF of 80% and allowance of incentive on this increased generation every quarter on cumulative basis, so as to maintain cash flow.

Commission's Analysis

The Commission reviewed the PLF estimates in conjunction with the PAF estimates to verify the consistency of PLF with PAF. The Commission observed that the revised estimates of PLF by the Petitioner are broadly in line with the PAF estimates.

Table 6: Comparison of PLF and PAF estimated by Petitioner

(%)



Stations	PAF as per the Order dated 9-12-2009	PLF as per the Order dated 9-12-2009	PAF as per TPL estimates	PLF as per TPL estimates
C Station	95.05	93.84	91.85	88.33
D Station	94.73	93.37	94.65	96.28
E Station	73.63	72.71	95.93	95.74
F Station	95.36	94.34	95.07	96.01
Vatva Gas CCPP	93.81	87.97	96.25	91.67

The Commission accepts the PLF estimates submitted by the Petitioner. The summary of the Commission's analysis is presented in the table below.

Table 7: PLF for FY 2009-10 as estimated by Commission

(%)

Stations	Estimated by Commission in the Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
C Station	93.84	88.33	88.33
D Station	93.37	96.28	96.28
E Station	72.71	95.74	95.74
F Station	94.34	96.01	96.01
Vatva Gas CCPP	87.97	91.67	91.67

On the matter of incentive for generation above the normative PLF of 80%, the Commission will decide on the incentive during the true-up process of FY 2009-10 when the actual generation details for the entire year will be available.

3.2.3 Auxiliary consumption

Petitioner's Submission



The Petitioner has submitted the auxiliary consumption data based on six months actuals for FY 2009-10 which are provided in the table below.

Table 8: Auxiliary consumption as estimated by the Petitioner for FY 2009-10

(%)

Stations	Approved as per the MYT Order	TPL-G (APP) Estimate	
		H1 Actual	FY 2009-10
C Station	9.41	9.59	9.70
D Station	8.73	8.39	8.47
E Station	8.73	8.39	8.47
F Station	8.73	8.39	8.47
Vatva Gas CCPP	2.92	2.40	2.62

The auxiliary consumption of all the stations has been estimated less than the values approved in MYT Order except for station C where it has been revised upwards. The Petitioner has mentioned that the reason for the same is the old age of Plant C which is more than 50 years old. The Petitioner has estimated the full year values based on the H1 actual and the approved values as per the MYT Order.

Commission's Analysis

The Commission observes that in respect of station C, the Petitioner has attributed the rise in auxiliary consumption to its old age. The Commission in its MYT Order and order dated 9-12-2009 had approved auxiliary consumption of 9.41% for station C after considering the high auxiliary consumption achieved in FY 2007-08 and FY 2006-07. The full year estimation submitted by the Petitioner (9.70%) is considerably higher than the H1 actual (9.59%).

In regard to stations D, E, F and Vatva, the H1 actual auxiliary consumption figures for FY 2009-10 are lower than the approved auxiliary consumption. The Petitioner has submitted that it has been able to achieve these figures by taking up regular repair and maintenance activities. The Commission has verified this submission by observing the historically reducing trend in auxiliary consumption. However, the Commission observes that the method used by the Petitioner to estimate full year values, based on average of H1 actuals and approved as per the MYT Order, is inappropriate.



Based on the above observations and the review of the submissions made by the Petitioner, the Commission has approved the auxiliary consumption at the level of H1 actual values for all the stations.

The summary of Commission's analysis is presented in the following table:

Table 9: Summary of auxiliary consumption approved for FY 2009-10

(%)

Stations	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
C Station	9.41	9.70	9.59
D Station	8.73	8.47	8.39
E Station	8.73	8.47	8.39
F Station	8.73	8.47	8.39
Vatva Gas CCGP	2.92	2.62	2.40

3.2.4 Station Heat Rate (SHR)

Petitioner's Submission

The Petitioner has estimated the Station Heat Rates (SHR) for FY 2009-10 based on H1 actuals and approved values as per the MYT Order. The Petitioner has also mentioned that it has estimated SHR for all its stations on the basis of Net Calorific Value (NCV) basis. However, the Petitioner has also furnished SHR on GCV basis.

Table 10: SHR for FY 2009-10 estimated by Petitioner

(kCal/kWh)

Stations	Approved as per MYT Order	TPL-G (APP) Estimate			
		H1 Actual		FY 2009-10	
		NCV	GCV	NCV	GCV
C Station	3700	3532	3720	3613	3805
D Station	2565	2441	2598	2499	2655
E Station	2675	2613	2779	2642	2805



Stations	Approved as per MYT Order	TPL-G (APP) Estimate			
		H1 Actual		FY 2009-10	
		NCV	GCV	NCV	GCV
F Station	2715	2648	2816	2679	2846
Vatva Gas CCPP	1950	1923	2135	1936	2149

The Petitioner has further submitted that it has maintained the SHR for all the Stations within the levels approved by the Commission.

Commission's Analysis

The Commission has observed that the Petitioner has submitted the SHRs on Gross Calorific Value (GCV) as directed by the Commission. The Commission had requested for a study to be conducted by Central Electricity Authority (CEA) with regard to the technical parameters of generating stations of TPL-G (APP). In its recommendations which were published in October 2009, the CEA has recommended SHR parameters on GCV basis. However, the Commission in its order dated 9-12-2009, did not implement these recommendations for FY 2009-10 on the ground that such a move would leave little time for the Petitioner to adopt strategies to absorb their impact. Therefore, the CEA recommendations have not been considered for APR of FY 2009-10 but they have been considered for approving ARR for FY 2010-11.

In order to maintain consistency with the Order dated 9-12-2009, the Commission has decided to approve the SHR on NCV basis. The Commission observes that TPL-G (APP) has achieved better SHR values in H1 as compared to the SHR values approved in the MYT Order and order dated 09-12-2009. However, barring stations E and Vatva, the actual values are still considerably poorer than those recommended by CEA.

Table 11: H1 actual SHR compared with SHR recommended by CEA

(kCal/kWh)

Stations	H1 Actual SHR on GCV basis	SHR recommended for FY 2009-10 by CEA (GCV)
C Station	3720	3240
D Station	2598	2515



Stations	H1 Actual SHR on GCV basis	SHR recommended for FY 2009-10 by CEA (GCV)
E Station	2779	2790
F Station	2816	2790
Vatva Gas CCPP	2135	2200

Further, the Commission observes that the method used by the Petitioner to estimate full year values, based on average of H1 actuals and approved as per the MYT Order, is inappropriate. Based on the above observations and the review of the submissions made by the Petitioner, the Commission has approved the SHR at the level of H1 actual values for all the stations.

Table 12: SHR for FY 2009-10 approved by Commission (NCV basis)

(kCal/kWh)

Stations	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
C Station	3700	3613	3532
D Station	2565	2499	2441
E Station	2675	2642	2613
F Station	2715	2679	2648
Vatva Gas CCPP	1950	1936	1923

3.2.5 Secondary Fuel Oil Consumption

Petitioner's Submission

The Petitioner has estimated the secondary fuel oil consumption for FY 2009-10 as 0.80 gm/kWh against the Commission's approved value of 1.45 gm/kWh under the MYT Order. This is based on the actual achievement of 0.22 gm/kWh in H1 and approved value of 1.45 gm/kWh for FY 2009-10 as per the MYT Order. The Petitioner mentioned



that it has been able to achieve such low secondary fuel oil consumption because of the lower incidence of backing down, forced outage.

Commission's Analysis

The Commission observes that although the Petitioner has incurred 0.22 gm/kWh as Secondary Fuel Oil Consumption in the H1 of FY 2009-10, the Petitioner has not provided any reason for the increase in the consumption estimate to 0.80 gm/kWh for the whole year. Therefore, the Commission has considered H1 actual value while approving the oil consumption for FY 2009-10.

The Commission's analysis is summarized in the table below.

Table 13: Secondary fuel oil consumption for FY 2009-10

(gm / kWh)

Particular	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimate considered for APR
Secondary fuel oil consumption	1.45	0.80	0.22

3.2.6 Coal Transit & Handling Losses

Petitioner's Submission

The Petitioner has estimated coal transit & handling losses for FY 2009-10 at 2.43% based on the H1 actual achievement of 3.46% and approved value of 1.40%. The Petitioner has mentioned that the high transit losses are on account of uncontrollable factors such as distance from the coal mine, pilferage and the weighing system used by the coal supplier. The Petitioner has stated that it has successfully brought down the losses from the level of 8% to current levels and has further elaborated the steps it has taken to reduce the transit losses. The Petitioner has also stated that due to locational disadvantage of Gujarat stations vis-à-vis the Central Generating stations with respect to the coal mines, the transit losses are considerably higher.

Commission's Analysis

The Commission has assessed the submission of the Petitioner and is of the view that the coal transit and handling loss of 2.43% estimated by the Petitioner is very high. The



approved loss has already been considered at a higher level compared to the loss figure as per the GERC Terms and Conditions of Tariff Regulations, 2005. The Commission had approved a transit loss of 1.4% in the Order dated 9-12-2009 as compared to 0.8% specified in the GERC Terms & Conditions of Tariff. Further, the Commission is of the view that the coal transit & handling loss is a controllable parameter. Based on the above observations, the Commission has approved the transit loss at 1.40%.

Table 14: Transit loss approved by Commission for FY 2009-10

Particular	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimate considered for APR
Coal transit & handling losses	1.40%	2.43%	1.40%

3.2.7 Gross generation and Net generation

Commission's Analysis

The Commission has undertaken the computation of gross generation and net generation based on the analysis for performance parameters indicated in the previous sections. The Computation of the gross and net generation is provided in the table below.

Table 15: Gross & Net Generation for FY 2009-10

Stations	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
C Station			
Capacity in MW	60	60	60
PLF in %	93.84%	88.33%	88.33%
Gross Generation in MUs	493.22	464.26	464.26
Auxiliary Consumption (MUs)	46.41	45.04	44.52
Net Generation in MUs	446.81	419.22	419.74
D Station			
Capacity in MW	120	120	120
PLF in %	93.37%	96.28%	96.28%



Stations	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Gross Generation in MUs	981.51	1012.06	1,012.10
Auxiliary Consumption (MUs)	85.69	85.70	84.91
Net Generation in MUs	895.82	926.36	927.18
E Station			
Capacity in MW	110	110	110
PLF in %	72.71%	95.74%	95.74%
Gross Generation in MUs	700.63	922.59	922.55
Auxiliary Consumption (MUs)	61.17	78.12	77.40
Net Generation in MUs	639.47	844.46	845.15
F Station			
Capacity in MW	110	110	110
PLF in %	94.34%	96.01%	96.01%
Gross Generation in MUs	909.06	925.16	925.15
Auxiliary Consumption (MUs)	79.36	78.34	77.62
Net Generation in MUs	829.70	846.82	847.53
Vatva Gas CCPP			
Capacity in MW	100	100	100
PLF in %	87.97%	91.67%	91.67%
Gross Generation in MUs	770.62	803.01	803.03
Auxiliary Consumption (MUs)	22.50	21.04	19.27
Net Generation in MUs	748.12	781.97	783.76
Total TPL-G (APP)			
Gross Generation in MUs	3855.04	4127.08	4127.09
Auxiliary Consumption (MUs)	295.13	308.25	303.73
Net Generation in MUs	3559.91	3818.83	3823.36

3.2.8 Variable Cost

The Commission has analyzed the variable cost of generation using parameters such as SHR, specific oil consumption, transit loss, fuel NCV, fuel price and blending ratio of coal. The details of the analysis are provided in the subsequent paragraphs.



3.2.8.1 Fuel NCV

Petitioner's Submission

The Petitioner has submitted that it has estimated NCV of all fuels for FY 2009-10 based on the actual data of 6 months and approved values as per MYT Order. The NCV of all fuels as estimated by the Petitioner are shown below.

Table 16: Fuel NCV as estimated by TPL-G (APP)

Fuel sources	Approved as per the MYT Order	TPL-G (APP) Estimate	
		H1 Actual	FY 2009-10
Indigenous Coal (kCal/kg)	5236	4394	4817
Imported Coal (kCal/kg)	4929	5010	4980
Secondary fuel oil (kCal/kg)	9766	9707	9757
Gas (kCal/'000 SCM)	8305	8305	8305

On the issue of reduction in calorific value of indigenous coal, the Petitioner has reasoned that the quality of coal received from CIL/SECL has deteriorated.

Commission's Analysis

In order to verify the calorific values submitted by the Petitioner, the Commission had directed the Petitioner to submit the actual fuel bills and laboratory test reports for H1 of FY 2009-10. The Petitioner submitted the requested data vide its letter dated 01-02-2010.

However, since parameters such as NCV and fuel price are uncontrollable and their actual impact is passed on regularly to the consumers through the FPPPA mechanism, the Commission has decided to approve the NCV at the level which was approved in the Order dated 9-12-2009. The actual performance will be considered during the true-up process of FY 2009-10 when the actual data for the year will be available. In order to compensate for this on the revenue side, the revenue earned through fuel cost adjustment charges will not be considered.



Table 17: NCV approved by Commission for FY 2009-10

Fuel sources	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Indigenous Coal (kCal/kg)	5236	4817	5236
Imported Coal (kCal/kg)	4929	4980	4929
Secondary fuel oil (kCal/kg)	9766	9757	9766
Gas (kCal/'000 SCM)	8305	8305	8305

3.2.8.2 Blending ratio for coal

Petitioner's Submission

Petitioner has submitted that it uses imported coal due to supply constraints of domestic coal. The Ahmedabad plant normally uses indigenous coal for Station C and blended coal for stations D, E and F thus resulting in an overall average blending ratio of 64:36 for FY 2009-10. This ratio has been worked out considering the actual ratio for H1 and approved ratio for H2. This is much lower than the ratio of 72:28 approved in the MYT Order.

The Petitioner has reasoned that, post signing of the fuel supply agreement with CIL/SECL, the fuel supply from premium mines has been reduced which has led to reduction of calorific value of coal received. This had led to an increase in usage of imported coal, thereby changing the blending ratio. The Petitioner recorded a blending ratio of 58:42 for first 6-months and worked out revised blending ratio of 64:36 considering actual ratio for H1 and approved ratio for H2.

Commission's Analysis

The Commission has noted the submissions made by the Petitioner in respect of the reduction in blending ratio. However, since blending ratio is uncontrollable and its impact is passed on regularly to the consumers through the FPPPA mechanism, the Commission has decided to approve the blending ratio at the level which was approved in the Order dated 9-12-2009 (72:28 on an overall basis). The actual performance will be considered during the true-up process of FY 2009-10 when the actual data for the year



will be available. In order to compensate for this on the revenue side, the revenue earned through fuel cost adjustment charges will not be considered.

Table 18: Blending ratio approved by Commission for FY 2009-10

Particular	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimate considered for APR
Blending Ratio	72:28	64:36	72:28

3.2.8.3 Fuel price

Petitioner's Submission

The Petitioner has submitted that it has estimated prices of all fuels for FY 2009-10 based on the actual data of 6 months and approved values as per MYT Order. The prices of all fuels as estimated by the Petitioner are shown below.

Table 19: Fuel prices estimated by TPL-G (APP)

Fuel sources	Approved as per the MYT Order	TPL-G (APP) Estimate	
		H1 Actual	FY 2009-10
Indigenous Coal (Rs./Tonne)	2757	3071	2997
Imported Coal (Rs./Tonne)	3035	4127	3720
Gas (Rs. per '000 SCM)	8095	9691	9691
Secondary fuel oil (Rs./Tonne)	18053	27099	19432

Commission's Analysis

The Commission has observed that the estimated fuel prices are higher than the fuel prices approved in the Order dated 9-12-2009. The Commission directed the Petitioner to submit actual fuel bills for H1 of FY 2009-10 to verify the fuel prices. The Petitioner accordingly submitted sample invoices vide its letter dated 01-02-2010. The Commission assessed the submitted data and found the submissions made by the Petitioner in the petition to be appropriate.



However, since parameters such as NCV and fuel price are uncontrollable and their actual impact is passed on regularly to the consumers through the FPPPA mechanism, the Commission has decided to approve the fuel prices at the level which was approved in the Order dated 9-12-2009. The actual price will be considered during the true-up process of FY 2009-10 when the actual data for the year will be available. In order to maintain consistency on the revenue side, the revenue earned through fuel cost adjustment charges will not be considered.

Table 20: Fuel prices approved by Commission for FY 2009-10

Fuel sources	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Indigenous Coal (Rs./Tonne)	2757	2997	2757
Imported Coal (Rs./Tonne)	3035	3720	3035
Gas (Rs. per '000 SCM)	8095	9691	8095
Secondary fuel oil (Rs./Tonne)	18053	19432	18053

3.2.8.4 Computation of variable cost

Based on the fuel parameters approved for FY 2009-10, the Commission has estimated the quantity and cost for each fuel type. The details of variable charges for each fuel type are provided in the table below:

Table 21: Variable cost for each fuel type computed by Commission

Fuel Type	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Indigenous Coal			
Requirement (Mn. Tonnes)	1.22	1.22	1.27
Rate (Rs./Tonne)	2757	2997	2757
Cost (Rs. crores)	335.31	364.98	350.40
Imported Coal			
Requirement (Mn. Tonnes)	0.48	0.68	0.49



Fuel Type	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Rate (Rs./Tonne)	3035	3720	3035
Cost (Rs. crores)	145.45	252.01	147.91
Gas			
Requirement (Mn. SCM)	181	187.21	185.94
Rate (Rs./'000 SCM)	8095	9691	8095
Cost (Rs. crores)	146.47	181.43	150.52
Secondary fuel oil			
Requirement (Tonnes)	4472.41	2665.24	731.29
Rate (Rs./Tonne)	18053	19432	18053
Cost (Rs. crores)	8.07	5.18	1.32
Total Coal & Secondary Fuel (Rs. crores)	489	622.17	499.63
Total Gas (Rs. crores)	146	181.43	150.52
Total Fuel Cost of TPL-G (Rs. crores)	635	803.59	650.14

3.2.9 Fixed Cost components

3.2.9.1 Operations & Maintenance (O&M) expenses

Petitioner's Submission

The Petitioner has submitted that it has estimated the O&M expense for FY 2009-10 based on 6 months of actual data which is provided in the table below.

Table 22: O&M expenses estimated by TPL-G (APP) for FY 2009-10

(Rs. crores)

O&M expense sub heads	Approved as per the MYT Order	TPL-G (APP) Estimate	
		H1 Actual	FY 2009-10
Employee Expenses	52.69	26.57	68.00



O&M expense sub heads	Approved as per the MYT Order	TPL-G (APP) Estimate	
		H1 Actual	FY 2009-10
R&M Expenses	60.12	15.76	51.69
A&G Expenses	23.49	7.74	19.26
Total O&M	136.3	50.08	138.95

TPL-G (APP) has stated that increase in case of employee expenses is on account of provision made for wage revision. Further, TPL-G (APP) has submitted that in case of R&M expenses, the reduction is on account of deferment of some of the expenses to FY 2010-11.

Commission's Analysis

The Commission has analyzed the revised estimates and H1 actuals for O&M expenses. In case of employee expenses, the estimated value by the Petitioner is much higher than that approved in the Order dated 9-12-2009. The Commission notes that all O&M expenses are controllable. Hence, the Commission approves all O&M expenses as per the values approved in the MYT Order. The Commission will consider the actual expenses during the time of true-up for computation of gains / losses.

Table 23: O&M expense summary for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Employee expenses	52.69	68.00	52.69
R&M expenses	60.12	51.69	60.12
A&G expenses	23.49	19.26	23.49
Total O&M expenses	136.3	138.95	136.30

3.2.9.2 Capital expenditure, Capitalization & Sources of financing

Petitioner's Submission



The Petitioner has estimated a lower capital expenditure than the amount approved in the MYT Order. The Petitioner has further submitted that it has deferred the capital expenditure on various projects due to economic slowdown.

Table 24: Estimated capital expenditure for FY 2009-10

(Rs. crores)

Capital expenditure items	Approved as per MYT Order	Estimates submitted by TPL-(G) APP for FY 2009-10
C station cooling tower – IDCT	-	6
E station upgradation	85	
Refurbishment & revamping of F station		
ESP field extension, overhauling of existing ESP, control replacement, Ash handling system extension	-	0.5
HP Heater replacement for “F “ Station		0.5
Pollution control scheme	7.95	
Renovation and refurbishment of civil structures/buildings for C Station	6.25	1
Installation of new conveyor from conveyor N4B Discharge end		
Renovation of down stream conveyor from existing crusher house to D,E & F station Bunkers		
Construction of new cooling towers	2	
Normal capital expenditure – Sabarmati	12.08	12.04
Normal capital expenditure – Vatva	2.03	1.55
Carry over of earlier years		7.31



Capital expenditure items	Approved as per MYT Order	Estimates submitted by TPL-(G) APP for FY 2009-10
Miscellaneous Item- Admin		14.65
Total	115.31	43.55

The reasons for reduction of expenditure are described below:

- Rs. 9 crore, planned for the replacement of two NDCTs with IDCT cooling tower for C-station has been phased out in two years i.e. FY 2009-10 and FY 2010-11. Thus, Rs. 6 Crores capital expenditure has been proposed for FY 2009-10 and the balance Rs. 3 Crores is deferred to FY 2010-11.
- Rs. 105 Crore for upgradation of E-Station has been deferred to FY 2010-11 and FY 2011-12.
- The capital expenditure for D Station for ESP field extension and Ash handling system extension of Rs. 17 Crores has been deferred to FY 2010-11.
- The planned expenditure of refurbishment and revamping of F-Station and HP heater replacement of F-Station has been phased out in FY 2009-10 and FY 2010-11.
- Phasing of renovation of C station buildings and structures in a phased manner i.e. Rs. 1 Crores in the year FY 2009-10 and Rs. 5 Crores in the year FY 2010-11.
- Downward revision of capital expenditure for Sabarmati and Vatva bringing it down from Rs. 17.34 Crores to Rs. 12.04 Crores and from 2.93 Crores to Rs. 1.55 Crores.

Commission's Analysis

The Commission has reviewed the reason of economic slowdown stated by the Petitioner for deferment / reduction of capital expenditure. Except normal capital expenditure most of the intended projects as approved in the Order dated 9-12-2009 have been deferred. Based on a review of the reasoning submitted by the Petitioner, the Commission has treated capital expenditure as an uncontrollable expense. In this regard the Commission has drawn reference to Clause 9.6 of MYT regulations which provides for economy wide influences such as economic slowdown to be treated as uncontrollable factor:



9.6 ... For the purpose of these Regulations, the term uncontrollable factors shall include the following factors which were beyond the control of, and could not be mitigated by, the applicant, as determined by the Commission-

(a) ...

(b) ...

(c) Economy-wide influences, such as unforeseen changes in inflation rate, market-interest rates, taxes and statutory levies.

The Commission has further estimated the quantum of debt and equity using the normative debt equity ratio of 70:30.

Table 25: Capitalization and sources of financing for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Capitalization	136.61	41.94	41.94
Debt %	70	70	70
Debt	95.63	29.36	29.36
Equity	40.98	12.58	12.58

3.2.9.3 Interest Expenses

Petitioner's Submission

In its petition, the Petitioner has estimated the interest expenses on the existing loans on the basis of opening balances of the loans for FY 2009-10. Thus TPL-G (APP) has worked out the interest on existing loans as follows.

Table 26: Estimated Interest Expense on existing loans for 2009-10

(Rs. crores)

Existing loan sub-heads	Approved as per the MYT Order	Estimates submitted by TPL-(G) APP for FY 2009-10
IDFC Term Loan II		



Existing loan sub-heads	Approved as per the MYT Order	Estimates submitted by TPL-(G) APP for FY 2009-10
Opening balance	17.86	17.86
Repayments	7.14	7.14
Closing balance	10.71	10.71
Interest rate	8.17%	8.17%
Interest on loan	1.12	1.12
LIC I		
Opening balance	97.5	46.66
Repayments	10	4.79
Closing balance	183.13	41.87
Interest rate	12%	11.00%
Interest on loan	16.84	4.90
Total	17.96	6.02

Further, TPL-G (APP) has also estimated interest expenses on new loans on a normative basis as follows.

Table 27: Estimated Interest Expense on new loans for 2009-10

(Rs. crores)

Existing loan sub-heads	Revised Estimates submitted by TPL-(G) APP for FY 2009-10
Capitalization during the year	41.94
Normative Debt @ 70%	29.36
Opening Balance	0.00
New Borrowings	29.36
Repayments	0.73
Closing Balance	28.62
Interest expenses at 11% rate	1.57

Commission's Analysis



With regards to interest on existing loans, the Commission reviewed interest expenses for FY 2009-10 as computed in the order dated 09-12-2009 and also verified terms of loan from loan sanction letters. The Commission observed TPL's computations to be appropriate. With respect to new loans, the Commission found the interest rate of 11% used by the Petitioner is in line with the current market rates.

The Commission has treated interest expense as uncontrollable since capital expenditure has been considered as uncontrollable. For the purpose of APR of FY 2009-10, the Commission has considered the revised estimates of TPL-G (APP).

The final summary for interest expense is shown below.

Table 28: Interest expense approved for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Interest expense	12.25	7.59	7.59

3.2.9.4 Depreciation

Petitioner's Submission

In its petition the Petitioner has estimated depreciation based on the audited GFA for FY 2008-09 and the revised estimate for capitalization. The depreciation has been computed using the CERC rates of depreciation. The revised estimate of capitalization is lower due to deferment of capital expenditure.

Table 29: Depreciation for FY 2009-10 estimated by Petitioner

(Rs. crores)

Item	Approved as per the MYT Order	Estimates submitted by TPL-(G) APP for FY 2009-10
Depreciation	33.94	27.63

Commission's Analysis



The Commission has noted that the Petitioner has computed the depreciation using CERC depreciation rates on different categories of assets like plant & machinery, buildings, cables, etc as permitted by GERC Terms & Conditions of Tariff Regulations, 2005. The Commission for the purpose of APR of FY 2009-10 has considered the revised estimates of Petitioner. The final summary for depreciation expenses is presented below.

Table 30: Depreciation expense approved for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Depreciation expenses	25.33	27.63	27.63

3.2.9.5 Interest on Working Capital

Petitioner's Submission

In its petition, TPL-G (APP) has estimated the interest on working capital on a normative basis based on the revised estimate for the various components of working capital:

Table 31: Interest on Working Capital as estimated by Petitioner for FY 2009-10

(Rs. crores)

Particulars	Approved as per MYT Order	Estimates submitted by TPL-(G) APP for FY 2009-10
Coal & Secondary Fuel for 2 months	81.41	103.69
Cost of gas for 1 month	12.21	15.12
O&M Expenses for 1 month	11.36	11.58
1% of GFA for maintenance spares	7.74	7.78
Receivables equivalent to 2 months	152.24	179.35
Normative Working Capital	264.96	317.52
Interest rate	10.25%	10.25%
Interest on Working Capital	27.16	32.55



Commission's Analysis

The Commission has worked out interest on working capital on normative basis by recomputing each component as per the value approved for the purpose of APR of FY 2009-10. The interest has been worked out considering the interest rate of 10.25%.

The summary of Commission's analysis on interest on working capital is shown below:

Table 32: Summary of Interest on working capital expense for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Coal & Secondary Fuel for 2 months	81.47	103.69	83.27
Cost of gas for 1 month	12.21	15.12	12.54
O&M Expenses for 1 month	11.36	11.58	11.36
1% of GFA for maintenance spares	7.36	7.78	7.36
Receivables equivalent to 2 months	149.22	179.35	151.17
Normative Working Capital	261.62	317.52	265.70
Interest rate	10.25%	10.25%	10.25%
Interest on Working Capital	26.82	32.55	27.23

3.2.9.6 Return on Equity

Petitioner's Submission

TPL-G (APP) has computed the opening equity using opening equity of the integrated utility as approved in the MYT Order and apportioned it to TPL-G (APP) on the basis of audited opening GFA. . The Petitioner has computed the return on equity on a normative basis using a normative equity addition (as 30% of capitalization) during the year.



Table 33: Return on Equity as estimated by TPL-G (APP) for FY 2009-10

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimates submitted by TPL-(G) APP for FY 2009-10
Opening equity	324.15	307.91
Capitalization during the year	136.61	41.94
Equity addition during the year	40.98	12.58
Closing equity	365.13	320.49
Return on Equity @ 14%	48.25	43.99

Commission's Analysis

The Commission has analyzed the submission made by the Petitioner and has found that TPL-G (APP)'s estimation is in line with the opening equity balance of FY 2009-10 determined in the order dated 09-12-2009. The Commission has accepted TPL-G APP's estimates for the purpose of APR of FY 2009-10.

Table 34: Summary of Return on Equity for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Revised Estimates considered for APR
Return on Equity	45.98	43.99	43.99

3.2.9.7 Income Tax

Petitioner's Submission

In the MYT Order, the Commission had computed income tax as per the GERC Terms & Conditions of Tariff Regulations, 2005 by applying the rate of 33.99% on the permissible return i.e. return on equity (RoE). TPL-G (APP) has revised the tax calculation by considering RoE as the post tax return (PAT). The Petitioner has considered a tax rate of 33.99%. The submission of the Petitioner is indicated in the table below:

Table 35: Income Tax as estimated by TPL-G (APP) for FY 2009-10

(Rs. crores)



Particulars	Estimates submitted by TPL-(G) APP for FY 2009-10
ARR including non-tariff income	1,076.95
Total expense	1,010.31
PBT	66.64
Income tax	22.65
PAT	43.99

Commission's Analysis

The Commission has computed the income tax expense on a normative basis by applying the tax rate of 33.99% on the Return on Equity. The actual income tax paid will be considered during the process of true-up when the audited accounts will be available.

The final summary for income tax is shown below:

Table 36: Summary of Income tax

(Rs. crores)

Particulars	Approved as per Order dated 9-12- 2009	Estimated by TPL- G (APP)	Revised Estimates considered for APR
Income tax	15.63	22.65	14.95

3.2.9.8 Non-Tariff Income

Petitioner's Submission

TPL-G (APP), in its petition, estimated non-tariff income for FY 2009-10 based on actual for the first six months.

Table 37: Non-Tariff income estimated by TPL-G (APP) for FY 2009-10

(Rs. crores)

Particular	Approved as per MYT Order	TPL-G (APP) Estimate	
		H1 Actual	FY 2009-10
Non-Tariff income	1.50	0.44	0.84



Commission's Analysis

As per the letter dated 01-02-2010 TPL submitted details of the component wise non-tariff income. These are shown below:

Table 38: Breakup of Non-Tariff income for Apr – Sept 2009 submitted by TPL-G (APP)

(Rs. crores)

Non-Tariff income	Apr-Sept 2009
Miscellaneous income	0.40
Export to GUVNL	0.04
Total Non-Tariff income	0.44

The Commission has assessed the breakup of H1 non-tariff income provided by TPL-G (APP) and found the full year estimation to be appropriate. Therefore, the Commission for the purpose of APR has considered the revised estimates of TPL-G (APP).

Table 39: Summary of Non-Tariff income of TPL-G (APP) for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Approved for FY 2009-10
Non-Tariff income	2.27	0.84	0.84

3.2.10 Summary of APR of TPL-G (APP) for FY 2009-10

Table 40: Summary of TPL-G (APP) APR for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Approved for FY 2009-10
Variable Costs			
Station C	98.37	-	91.29



Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-G (APP)	Approved for FY 2009-10
Station D	143.35	-	137.62
Station E	106.66	-	134.27
Station F	140.44	-	136.45
Station Vatva	146.47	-	150.52
Total Variable Costs	635.30	803.59	650.14
Fixed Costs			
Employee Expenses	52.69	68.00	52.69
R&M Expenses	60.12	51.69	60.12
A&G Expenses	23.49	19.26	23.49
Depreciation	25.33	27.63	27.63
Interest on loans	12.25	7.59	7.59
Interest on Working Capital	26.82	32.55	27.23
Return on Equity	45.98	43.99	43.99
Income Tax	15.63	22.65	14.95
Total Fixed Costs	262.30	273.35	257.69
Gross ARR	897.60	1076.94	907.84
Non-Tariff income	2.27	0.84	0.84
Net ARR	895.33	1076.10	907.00



3.3 Ahmedabad Distribution

3.3.1 Sales

Petitioner's submission

TPL-Ahmedabad has, in its petition, estimated sales for FY 2009-10 based on actual sales for the first 6 months of FY 2009-10 and extrapolated them for the complete year. TPL-Ahmedabad has submitted that 65% of total sales in Ahmedabad are attributed to the industrial and commercial consumers whose growth largely depends on the economic conditions. The sales estimates which had been revised downwards for FY 2009-10 on account of economic slowdown in the order dated 9-12-2009 have now been revised upwards on account of changing economic conditions. The summary of estimated sales is provided below.

Table 41: Sales for FY 2009-10 as estimated by TPL-Ahmedabad

(MUs)

Particulars	Approved as per the MYT Order	H1 Actual FY 2009-10	Estimates submitted by TPL-Ahmedabad for FY 2009-10
Sales	5,340.00	2,713.90	4,988.26

TPL-Ahmedabad submitted that it has applied a YoY growth rate of 5.30% as compared to the 3-year CAGR of 8.35% and 8-year CAGR of 6.75%. The Commission had approved a YoY growth of 7.93% in the MYT Order. The category wise sales estimated are shown below.

Table 42: Consumer category wise sales for FY 2009-10 as estimated by TPL-Ahmedabad

(MUs)

Category	Approved as per the MYT Order	H1 Actual FY 2009-10	Estimates submitted by TPL-Ahmedabad for FY 2009-10
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Category	Approved as per the MYT Order	H1 Actual FY 2009-10	Estimates submitted by TPL- Ahmedabad for FY 2009-10
Residential General Purpose	1547.00	898.78	1576.55
Commercial General Purpose	837.00	465.29	841.05
Low Tension Power	285.00	135.76	268.21
Low Tension Maximum Demand	899.00	444.18	849.19
High Tension Maximum Demand	1546.00	684.02	1287.09
HT-Pumping	99.00	50.7	97.94
Others	127.00	30.85	63.91
DoE	0.00	4.32	4.32
Total	5340.00	2713.9	4988.26

The Petitioner has submitted the following reasons for deviation in sales estimation for each category:

Residential General Purpose

It accounts for about 32 % of total sales. The revised estimates of sales to this category have been estimated higher than the sales as per the MYT Order and 9-12-2009. The Petitioner has claimed that growth in sales in this category is mainly on account of development in various parts of the city and recovery in the economic environment.

Commercial General Purpose & Industrial General Purpose

It accounts for about 17% of total sales. This category mainly includes the commercial complexes including the mid sized and small shops. In the Order dated 9-12-2009, the Petitioner revised upwards the estimates for the mentioned category. The estimates were higher than the values approved as per the MYT Order. The Petitioner in the revised petition for APR of FY 2009-10 revised the estimates downwards. The revised estimate in the APR petition is lower as compared to the revised estimate in the last petition mainly on account of shift in the few of the new load considered in the revised estimate to LTMD category in this petition due to the revision in the connected load requirement.

The revised estimates are in line with the estimates approved in the MYT Order.



Low Tension Power

It accounts for about 5 % of total sales. The sales under this category are mainly contributed by small scale textile and engineering industries. The revised estimates as per the APR petition are less than the sales approved as per the MYT Order.

Low Tension Maximum Demand

It accounts for around 17 % of the total sales. The sale in this category is mainly contributed by industries like commercial complexes, power loom, casting and moulding, chemical, ice factories plastic etc. This category was the most affected due to economic slowdown. The estimates of the Petitioner in the Order dated 9-12-2009 were revised downwards in comparison to the sales approved for this category in the MYT Order. In the current petition the Petitioner though has revised its estimates upwards but the estimates are still less than the sales approved as per the MYT Order.

High Tension Maximum Demand

It accounts for 26% of the total sales. Due to the economic recession many of the commercial complexes, industries have either closed down or have scaled down their operations. Taking the cue from the actual growth in this category which was to the tune of 2.37% as compared to average growth from FY 2003-04 to 2007-08 which was 13%, the Petitioner has estimated the sales higher than the previous petition but lesser than the sales approved as per the MYT Order.

High Tension – Pumping

It accounts for about 2% of total sales. The sale under this category is mainly on account of water pumping and drainage pumping stations. The sales in this category have been revised upwards on account of deficit monsoon scenario.

Others

It accounts for about 2% of total sales. The sales in this category are mainly contributed agriculture, temporary, streetlights and general lighting purpose categories

Commission's analysis

The Commission has analyzed the sales estimated by TPL-Ahmedabad and also the reasons behind the deviations submitted by TPL-Ahmedabad. The Commission had asked TPL-Ahmedabad to submit the FY 2009-10 nine months' actual sales which was submitted by the Petitioner on 5th March, 2010.



For estimating the sales for FY 2009-10, the Commission analyzed the 3-year CAGR without including the recession year FY 2008-09 (FY 2005-06 to FY 2007-08) and the 4-year CAGR including the recession year FY 2008-09 (FY 2005-06 to FY 2008-09). This was done to compute the effect of economic recession in FY 2008-09 on growth of the each category. The Commission also analyzed the year on year growth of the past three years (FY 2005-06 to FY 2008-09). Further, the Commission has considered the fact that in the last quarter of FY 2009-10, the growth rate of the economy has improved and the economy has shown signs of recovery. This is corroborated by the GDP growth rate estimated by RBI for FY 2009-10 as shown in the table below.

Table 43: GDP growth rates (RBI)

(%)

Particular	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10 (estimated)
GDP Growth rate	9.6%	8.7%	6.7%	7.5%

The Commission has applied suitable growth rates on FY 2008-09 actual sales to arrive at the sales for FY 2009-10. A higher growth rate than TPL-Ahmedabad's estimate was considered in case of Commercial General Purpose category considering the minimal impact of economic recession on it in the past. A similar approach has been used for HTMD category after considering the actual 9 months' sales. For the other categories, the sales estimated by TPL-Ahmedabad have been accepted by the Commission considering the previous years' growth rates. The table below gives the 3-year CAGR, 4-year CAGR, growth rates considered by the Petitioner and the growth rates considered by Commission for major categories.

Table 44: Growth Rates for Sales Estimation: TPL-Ahmedabad

(%)

Categories	3-year CAGR (FY 2005-06 to FY 2007-08)	4-year CAGR (FY 2005-06 to FY 2008-09)	YoY growth rate FY 2008-09 over FY 2007-08	YoY growth rate FY 2009-10 over FY 2008-09	
				TPL estimates	Estimated by Commission
Residential General Purpose	4.66%	6.02%	10.20%	10.60%	10.60%
Commercial General Purpose	8.87%	10.00%	13.50%	10.50%	13.60%



Categories	3-year CAGR (FY 2005-06 to FY 2007-08)	4-year CAGR (FY 2005-06 to FY 2008-09)	YoY growth rate FY 2008-09 over FY 2007-08	YoY growth rate FY 2009-10 over FY 2008-09	
				TPL estimates	Estimated by Commission
Low Tension Power	1.56%	2.71%	6.20%	4.30%	4.30%
Low Tension Maximum Demand	2.97%	3.04%	3.30%	9.80%	9.80%
High Tension Maximum Demand	10.56%	8.46%	2.40%	1.40%	5.00%

The table below gives the summary of the sales for TPL-Ahmedabad for FY 2009-10. The values computed by the Commission are in line with the 9 months' actual sales for FY 2009-10

Table 45: Summary of FY 2009-10 sales for TPL-Ahmedabad

(MUs)

Category	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	9 months' actuals for FY 2009-10	Revised Estimates considered for APR
RGP	1593.80	1576.55	1344.69	1576.55
CGP	841.89	841.05	707.07	864.60
LTP-I	60.94	59.52	224.48	59.52
LTP-II	207.57	208.69		208.69
LTMD-I	125.28	138.29	725.38	138.29
LTMD-II	716.99	710.90		710.90
HTMD	1278.53	1287.09	1108.15	1433.91
HT Pumping	95.52	97.94	83.58	97.94
Others	75.29	68.23	62.39	68.23
Total	4995.82	4988.26	4255.74	5158.64

3.3.1.1 Number of installations

Petitioner's submission



The Petitioner has estimated the number of installations for Ahmedabad supply area based on the actual data available for April, 2009 to September, 2009 and the feedback from end use survey. The approved and revised estimates for the number of installations for FY 2009-10 are tabulated below.

Table 46: No. of installations estimated by TPL-Ahmedabad for FY 2009-10

Category	Approved as per the MYT Order	Estimates submitted by TPL-Ahmedabad for FY 2009-10
Residential General Purpose	1145533	1202063
Commercial General Purpose	319957	323845
Low Tension Power	49315	53220
Low Tension Maximum Demand	11435	12913
High Tension Maximum Demand	752	734
HT-Local Authority	134	153
Others	3730	2416
Total	1530856	1595344

The revised estimates of TPL-Ahmedabad for the number of consumer installations in the current petition are higher than the revised estimate of the last petition in all categories except LTP and HT due to the faster recovery of the economic condition. The overall consumer installations in Ahmedabad area have increased.

Commission's analysis

The Commission analyzed the revised estimates provided by TPL-Ahmedabad regarding Consumer installations. The Commission has observed that the YoY growth rate of the number of installations estimated by TPL-Ahmedabad for FY 2009-10 is in line with the actual YoY growth achieved in FY 2008-09 after considering the fact that FY 2008-09 was a year which experienced economic slowdown.

Table 47: YoY growth of no. of installations

(%)

Category	FY 2008-09 over FY 2007-08 (Actual)	FY 2009-10 over FY 2008-09 (Estimated by TPL)
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Category	FY 2008-09 over FY 2007-08 (Actual)	FY 2009-10 over FY 2008-09 (Estimated by TPL)
Residential General Purpose	5.8%	5%
Commercial General Purpose	1.5%	7%
Low Tension Power	12.4%	2%
Low Tension Maximum Demand	8.6%	16%
High Tension Maximum Demand	-8.5%	9%

The Commission for the purpose of APR of FY 2009-10 has accepted the revised estimates submitted by TPL-Ahmedabad.

Table 48: No. of installations approved for FY 2009-10

Category	Approved as per Order dated 9-12- 2009	Revised Estimates considered for APR
Residential General Purpose	1167011	1202063
Commercial General Purpose	316057	323845
Low Tension Power	54318	53220
Low Tension Maximum Demand	12110	12913
High Tension Maximum Demand	752	734
HT-Local Authority	127	153
Others	1262	2416
Total	1552732	1595344

3.3.2 Revenue from sale of power

Petitioner's submission

TPL-Ahmedabad has computed revenues of Rs. 2149.52 crores for FY 2009-10 based on 6 months of actual figures. These include fuel cost adjustment charges and revenues from UI sales.

Commission's analysis

The Commission has recomputed the revenue considering the revised estimates for sales and number of installations. The revenue computed by the Commission does not include the component of fuel cost adjustment since the Commission has considered the MYT Order approved values while computing the fuel and power purchase cost.



Table 49: Revenue for TPL-Ahmedabad approved by Commission

(Rs. crores)

Particular	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Revenue from sale of power	1904.69	2136.59	1971.32*

* Revenues from UI sales have not been considered since they have been subtracted from the power purchase cost

3.3.3 Distribution loss

Petitioner's submission

The Commission, in the MYT Order approved distribution loss for Ahmedabad area at 10.25% for FY 2009-10. As per the Petitioner the H1 actual loss for TPL-Ahmedabad has been 10.19%. For estimating the distribution loss for FY 2009-10, the Petitioner has maintained the distribution loss at the MYT Order approved level of 10.25%.

Commission's analysis

The Commission analyzed the submitted information on distribution loss of TPL-Ahmedabad. The Commission observes that to arrive at a realistic level of energy requirement for FY 2009-10, the actual loss level for H1 FY 2009-10 should be considered as the loss for the whole year FY 2009-10. The H1 actual loss for FY 2009-10 was 10.19% which is less than the loss level estimated by the Petitioner. The distribution loss was already approved at 10.25% in the MYT Order. Therefore, although the Commission doesn't approve the distribution loss again for FY 2009-10, but for the purpose of realistic assessment of energy requirement the Commission considers 10.19% as the distribution loss for FY 2009-10.

The Commission further clarifies that during the process of true-up, the MYT Order approved value of distribution loss shall be considered for computation of gain/loss.

The final summary for distribution loss is provided below:



Table 50: Distribution loss estimated by Commission

Particular	Calculated as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Distribution loss considered for Energy requirement for FY 2009-10
Distribution loss	8.54%	10.25%	10.19%

3.3.4 Energy Requirement

Petitioner's submission

The Commission, in the MYT Order, had approved the energy requirement considering a distribution loss of 10.25% and a transmission loss of 156 MUs. The variation in the energy requirement estimated by the Petitioner vis-à-vis the approved value as per MYT Order is mainly on account of change in sales and variation in transmission loss.

Table 51: Energy requirement estimated by TPL-Ahmedabad

(MUs)

Particulars	Approved as per the MYT Order	Estimates submitted by TPL-Ahmedabad for FY 2009-10
Energy Sales	5340.00	4988.26
Distribution loss (%)	10.25%	10.25%
Distribution loss	610.00	569.69
Energy input at distribution level	5950.00	5557.95
Transmission loss	156.00	45.94
Energy requirement	6106.00	5603.89

Commission's analysis

The Commission has recomputed the energy requirement based on the approved sales and distribution loss. The transmission loss as a percentage of energy requirement has been maintained at the level estimated by the Petitioner.



Table 52: Summary of Energy requirement for TPL-Ahmedabad

(MUs)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Energy Sales	4995.82	4988.26	5158.64
Distribution loss (%)	8.54%	10.25%	10.19%
Distribution loss	466.48	569.69	585.31
Energy input at distribution level	5462.30	5557.95	5743.94
Transmission loss	25.21	45.94	47.48
Energy requirement	5487.51	5603.89	5791.42

3.3.5 Energy Availability

Petitioner's submission

The Commission, in the MYT Order, had approved TPL-G (APP), TPL-G (SUGEN), GUVNL and Wind Energy as power sources for TPL-Ahmedabad. In the current petition the Petitioner has estimated the Energy Availability for TPL-D as a whole and not for each of the distribution areas separately.

TPL-D has submitted that there has been increased generation from TPL-G (APP) due to which Energy Availability from this source has increased. Further, GUVNL has unilaterally decided to stop the supply to TPL-D, with the commissioning of TPL-G (SUGEN). As per Petitioner, therefore, TPL-D has met the deficit due to unavailability of supply from GUVNL through the merchant capacity of TPL-G (SUGEN). With regards to procurement from wind power, the Petitioner has stated that as per GERC (Power Procurement from Renewable Sources) Regulations, 2005, all the distribution licensees in the State of Gujarat need to procure power from renewable sources. The regulation specified minimum percentage of procurement of power till FY 2008-09. In the absence of guideline for RPPO for FY 2009-10, TPL-D has assumed the obligation to be 2% of the energy requirement.

Table 53: Energy Availability estimated by TPL-D

(MUs)



Energy sources	H1 Actual	Estimated for FY 2009-10
TPL-G (APP)	2,014.20	3,818.27
TPL-G (SUGEN)	1,068.08	3288.99
GUVNL / Others	1,630.83	1624.41
Wind energy	73.41	117.35
UI Pool	(53.48)	(53.48)
Total	4,733.04	8795.54

Commission's analysis

In order to compute the Energy Availability for each of the distribution areas separately, the Commission had directed the Petitioner to submit details of source-wise energy supplied to Ahmedabad and Surat areas separately. The same was submitted by the Petitioner vide its letter dated 2nd March, 2010. The Commission while approving the power purchase for TPL-Ahmedabad allocated the entire net generation of TPL-G (APP) to Ahmedabad. The power purchase from GUVNL/ Others and wind has been approved as per the estimates submitted by TPL-Ahmedabad. The Commission has subtracted the net UI sales from the Power purchase to arrive at the power purchase quantum of TPL-Ahmedabad. The energy from SUGEN has been considered more than the estimates submitted by TPL Ahmedabad as the Commission has estimated that SUGEN shall be used to meet the energy requirement arising due to the increase in sales.

Table 54: Energy Availability approved for TPL-Ahmedabad for FY 2009-10

(MUs)

Energy source	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
TPL-G (APP)	3560	-	3823.36
TPL-G (SUGEN)	1207	-	1305.69
GUVNL/other sources	433	-	624.16
Wind energy	288	-	69.88
UI	-	-	(31.67)
Total	5488	-	5791.42

3.3.6 Power purchase cost



Petitioner's submission

The Petitioner has submitted power procurement rates from each source for the whole of TPL-D and not for each distribution area separately. Based on the rates from each source and estimation of energy procured, TPL-D has estimated the total power purchase cost as Rs. 2799.29 crores. The purchase rate for supply from TPL-G (APP) is estimated to be Rs. 2.82 / kWh, computed on the basis of revised ARR estimates of TPL-G (APP). The average rate of power purchase from GUVNL, including the FPPPA amounts to Rs. 3.85/kWh. The power purchase rate for supply from renewable sources is taken as Rs. 3.46/kWh.

Table 55: Power purchase cost estimated by TPL-D for FY 2009-10

Sources	Estimated by TPL-D for FY 2009-10
TPL-G (APP)	
Quantity in MUs	3,818.27
Rate in Rs./kWh	2.82
Cost in Rs. crores	1,076.11
TPL-G (SUGEN)	
Quantity in MUs	3,288.99
Rate in Rs./kWh	3.22
Cost in Rs. crores	1,057.45
GUVNL/Others	
Quantity in MUs	1,624.41
Rate in Rs./kWh	3.85
Cost in Rs. crores	625.14
Wind energy	
Quantity in MUs	117.35
Rate in Rs./kWh	3.46
Cost in Rs. crores	40.59
Total	
Quantity in MUs	8,795.54
Rate in Rs./kWh	3.18
Cost in Rs. crores	2,799.29

Commission's analysis

The Commission had asked the Petitioner to submit the power purchase details separately for Ahmedabad and Surat distribution areas. The same was submitted by the Petitioner vide the letter dated 2nd March, 2010. For power purchase cost from TPL-G (APP), the Commission has considered the generation and associated cost approved in the APR of FY 2009-10. For the power purchase from GUVNL/Others, SUGEN and Wind the Commission has considered the power purchase cost per unit at the MYT Order approved level. The rate approved in the MYT Order has been considered since the Commission has decided to approve all power purchase and generation related costs at the MYT Order approved values. Further, the Commission has subtracted the net UI revenues from power purchase cost to arrive at the total power purchase cost of TPL-Ahmedabad.

Table 56: Power purchase cost for TPL-Ahmedabad approved by Commission

Sources	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
TPL-G (APP)			
Quantity in MUs	3559.91	-	3823.36
Rate in Rs./kWh	2.52	-	2.37
Cost in Rs. crores	895.33	-	907.00
TPL-G (SUGEN)			
Quantity in MUs	1207.00	-	1305.69
Rate in Rs./kWh	2.98	-	2.98
Cost in Rs. crores	359.69	-	389.10
GUVNL/Other sources			
Quantity in MUs	433.05	-	624.16
Rate in Rs./kWh	3.10	-	3.10
Cost in Rs. crores	134.25	-	193.49
Wind energy			
Quantity in MUs	287.55	-	69.88
Rate in Rs./kWh	3.37	-	3.51
Cost in Rs. crores	96.90	-	24.53
UI Pool			
Quantity in MUs	-	-	-31.67
Rate in Rs./kWh	-	-	-
Cost in Rs. crores	-	-	12.94



Sources	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Total			
Quantity in MUs	5487.51	-	5791.42
Rate in Rs./kWh	2.71	-	2.59
Cost in Rs. crores	1486.17	1783.51	1501.17

3.3.7 Fixed Cost components

3.3.7.1 Operations & Maintenance (O&M) expenses

Petitioner's Submission

The Petitioner has submitted that it has estimated the O&M expense for FY 2009-10 based on 6 months of actual data which is provided in the table below.

Table 57: O&M expenses estimated by TPL-Ahmedabad

(Rs. crores)

O&M Expense	Approved as per MYT Order	TPL-Ahmedabad Estimate	
		H1 Actual	FY 2009-10
Employee Expenses	66.38	32.46	86.66
R&M Expenses	77.60	43.57	82.87
A&G Expenses	33.65	16.05	34.46
Total O&M	177.63	92.08	203.99

The Petitioner has revised upwards the O&M expenses of TPL-Ahmedabad. The increase in the O&M expenses can chiefly be attributed to employee expenses and to some extent to R&M expenses. The Petitioner has claimed that the employee expenses have been revised upwards mainly on account of the provision made for the wage revision of the employees which is currently under negotiation with the trade union which also includes the provision to be made towards retirement benefits for gratuity, leave encashment, etc. The repair and maintenance expenses have been revised upwards



mainly on account of increase in the number of faults due to the widespread digging activities across the city pertaining to various infrastructure projects.

Commission's Analysis

The Commission has analyzed the revised estimates and H1 actuals for O&M expenses. In case of employee expenses, the estimated value by the Petitioner is much higher than that approved in the Order dated 9-12-2009. The Commission notes that all O&M expenses are controllable. Hence the Commission approves all O&M expenses as per the values approved in the Order dated 9-12-2009. The Commission will consider the actual expenses during the time of true-up for computation of gains / losses.

Table 58: O&M expense summary for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Employee expenses	66.38	86.66	66.38
R&M expenses	77.60	82.87	77.60
A&G expenses	33.65	34.46	33.65
Total O&M expenses	177.63	203.99	177.63

3.3.7.2 Capital expenditure, Capitalization & Sources of financing

Petitioner's Submission

The Petitioner has estimated the capital expenditure based on the actual expenditure for the first half of FY 2009-10. The capital expenditure estimates have been revised downwards mainly on account of deferment of the schemes to future years as a cost control measure.

The table below provides details about the capital expenditure submitted by TPL Ahmedabad.

Table 59: Capital expenditure estimated by TPL-Ahmedabad for FY 2009-10

(Rs. crores)



Capital expenditure items	Approved as per MYT Order	Estimated by TPL-Ahmedabad
EHV	253.01	143.67
HT Network	93.5	61.5
LT Network	43.98	29.45
Metering	25.87	19.41
Special projects	7.3	6.55
Customer Care & IT Initiatives	24.33	29.4
Total	447.99	289.98

The main reasons for reduction in investments as provided by TPL-Ahmedabad are discussed below:

Investment in EHV Network

- TPL-Ahmedabad has deferred the investment in bulk supply point proposed at Gota due to lower Load Growth.
- Up-rating of 132 kV line between Pirana to Nicol-2 via Vastral and Vinzol has been deferred on account of lower load growth than envisaged.
- The capital expenditure for the under grounding of the 66kV interconnection line between C station and D station and part undergrounding of 66 kV SBI Gandhinagar line has been incurred under the head of Safety instead of EHV transmission.
- The major expenditure under EHV sub-station projects has been reduced. The scheme of building the 400kV/132kV EHV substation at Pirana. The project is under implementation and is expected to be continued during FY 2010-11.
- The 132 kV sub-station work at Prahladnagar which was envisaged to be carried out in FY 2009-10 at revised cost has been deferred to future years due to reduction in the load growth.
- The major work related to Upgradation of Gandhinagar substation from 66 kV to 132 kV was envisaged to be completed in FY 2009-10 at revised cost. However, according to revised schedule, some work will be carried forward to future years and accordingly cost has been deferred.
- The capital expenditure planned for dismantling of 66 kV switchyard at Naranpura and construction of new control room building with control panels has been kept on hold for want of AMC approval.
- The actual expenditure incurred to complete the pending work for 132 kV substations at Airport, Vastral, ISRO, IT Park, Vinzol and Thaltej Sub station has been



considered in the capital expenditure under this head and accordingly there is a reduction in cost.

- (i) The construction of 132kV Dudheshwar sub-station and 50 MVA Vinzol transformer project has been completed. This project was initially envisaged to be completed in FY 2008-09 and has been deferred to FY 2009-10.
- (j) The capital expenditure for 33 kV substations at Vastrapur, IIM & GIDC-Vatva has been deferred to FY 10-11 due to lower load growth.
- (k) The actual expenditure incurred to complete the pending work for 33 kV substations at CG Road, Gota, Shrinandnagar, Raipur, Civil Hospital and Manekhadi substation has been considered in the capital expenditure under this head and accordingly there is a reduction in cost.
- (l) The revised estimate for upgradation projects has been reduced mainly on account of deferment of the DT-2 modification work due to the delay in completion of 132 kV Dudheshwar substation project. This was due to the delay in receipt of various statutory clearances. Further few other expenses have been deferred due to operational difficulties.
- (m) The revised estimate for renovation and replacement projects has been increased mainly on account of inclusion of the proposed capital expenditure of Rs.1.00 Crores for rising of compound wall around various EHV sub-stations due to security reasons.
- (n) The revised estimate for safety and support infrastructure and automation related projects have been reduced mainly on account of deferment of few expenses.
- (o) The capital expenditure proposed to be carried out for Automation has been revised mainly on account of deferment of construction of Central control room. Further the automation of EHV substations, Mains Receiving Station (MRS) and Switch Houses has been deferred owing to cost control measures.

Investment in HT Network

The capital expenditure under the head investment in HT Network has been revised downward which is mainly on account of slowdown in the load growth. The revised estimate is to the tune of Rs. 61.49 Crores as against the previous estimation of Rs. 83.41 Crores.

Investment in LT Network

The capital expenditure estimate for investment in LT network has been revised upward on account of increase in release of connections under the Slum Electrification Project schemes, relieving overloaded distributors and other related to consumer load growth.



Investment in Metering

The capital expenditure under the head investment in metering has been revised to Rs. 19.41 Crores as against the revised estimate of Rs. 20.41 Crores submitted in the last petition. The variation in the investment is mainly on account of slowdown in the load growth.

Investment in Special Projects

The capital expenditure under the head investment in special projects has been revised to Rs. 6.55 Crores as against the revised estimate of Rs. 7.30 Crores submitted in the last petition. The downward revision is mainly on account of deferment of majority of its special projects other than the GIS project. The change in the capital expenditure for GIS project is mainly on account of speeding up of the project.

Investment in Customer Care & IT

The reduction in capital expenditure vis-à-vis the estimation done by TPL–Ahmedabad in the petition for ARR of FY 2009-10 is mainly on account of deferment of miscellaneous expenses.

Commission's Analysis

The Commission has reviewed the reason of economic slowdown stated by the Petitioner for deferment / reduction of capital expenditure. A significant portion of the capital expenditure as approved in the Order dated 9-12-2009 has been deferred to FY 2010-11. Based on a review of the reasoning submitted by the Petitioner, the Commission has treated capital expenditure as an uncontrollable expense. In this regard the Commission has drawn reference to Clause 9.6 of MYT regulations which provides for economy wide influences such as economic slowdown to be treated as uncontrollable factor:

9.6 ... For the purpose of these Regulations, the term uncontrollable factors shall include the following factors which were beyond the control of, and could not be mitigated by, the applicant, as determined by the Commission-

(a) ...

(b) ...

(c) Economy-wide influences, such as unforeseen changes in inflation rate, market-interest rates, taxes and statutory levies.

The Commission has further estimated the quantum of debt and equity using the normative debt equity ratio of 70:30.



Table 60: Capitalization and sources of financing for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Capitalization	401.35	247.56	247.56
Less: SLC additions	-	37.00	37.00
Less: Grant in aids	-	10.45	10.45
Net Capitalization	401.35	200.11	200.11
Normative Debt (@70%)	280.95	140.08	140.08
Normative Equity (@30%)	120.41	60.03	60.03

The Commission has observed that often utilities actually incur significantly lesser capital expenditure than what was approved while determining the tariff. The Commission is therefore, of the view that before including any scheme in the tariff proposal, the licensee shall obtain approval of the Commission as provided in Clause 65 (c) of the GERC (Terms and Conditions of Tariff) Regulations, 2005.

3.3.7.3 Interest Expenses

Petitioner's Submission

In the MYT Order, the Commission had approved the interest expenses for the entire distribution business (Ahmedabad & Surat combined) based on the actual opening balance of the loans for FY 2008-09 and apportioned it between Ahmedabad and Surat license areas in proportion to approved capital expenditure for the respective year. Starting with the order dated 09-12-2009, TPL-D identified loans for each area and reallocated the interest expenses on the existing loans on the basis of opening balances of the loans for each financial year for each area. Thus TPL-Ahmedabad has worked out the interest on existing loans as follows:

Table 61: Interest Expense on existing loans for FY 2009-10 estimated by TPL-Ahmedabad

(Rs. crores)

Existing loan sub-heads	Estimated in the Petition
APDRP	



Existing loan sub-heads	Estimated in the Petition
Opening balance	35.22
Interest rate	9.00%
Interest expense	3.13
HDFC 2A	
Opening balance	40.38
Interest rate	10.75%
Interest expense	3.95
HDFC 3A	
Opening balance	100.00
Interest rate	11.00%
Interest expense	10.28
SBI	
Opening balance	193.30
Interest rate	11.00%
Interest expense	19.45
LIC	
Opening balance	50.84
Interest rate	11.00%
Interest expense	5.33
Total	
Opening balance	419.74
Interest expense	42.15

Further, TPL-Ahmedabad has also worked out the interest expense on new loans on a normative basis as follows:

Table 62: Interest expense to meet capitalization for TPL-Ahmedabad for FY 2009-10

(Rs. crores)

Particular	Estimated by TPL-Ahmedabad
Capital expenditure during the year	289.99
Capitalization during the year	247.56
Less: SLC additions	37.00



Particular	Estimated by TPL-Ahmedabad
Less: Grant in aids	10.45
Normative Debt @ 70%	140.08
Opening Balance	0.00
New Borrowings	140.08
Closing Balance	136.57
Interest expense	7.51

Commission's Analysis

In order to assess the interest on existing loans, the Commission studied the data formats submitted by the Petitioner detailing the schedule of loans obtained. It has reviewed the figures of opening and closing balances and the interest rates used and found them to be appropriate. Further, the Commission observed that TPL-Ahmedabad has considered the loan amount of Rs. 140.08 crores disbursed from Bank of Baroda (BoB) as a new loan and computed the interest on new loan accordingly. The Commission has considered this loan as a part of existing loan and not as a new loan since it was sanctioned in FY 2008-09 and disbursed in FY 2009-10. The Commission has considered the estimates of the TPL-Ahmedabad while approving the interest on existing loans and added the interest on BoB loan (Rs. 7.51 crores).

While computing the interest on new loans, the Commission has reduced the disbursed BoB loan amount from the normative debt requirement. It has observed that the interest rate of 11% used by the Petitioner is in line with the market rates. Thus the Commission has computed the interest expense on new loans as follows:

Table 63: Interest expense on new loans

(Rs. crores)

Particular	Computed by Commission
Normative Debt @ 70%	140.08
Less Net Disbursement from BoB	136.57
Opening Balance	0.00
Net addition	3.50
Closing Balance	3.50
Interest expense	0.19



The final summary for interest expense is shown below.

Table 64: Summary of interest expense for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Interest expenses	61.90	49.66	49.85

3.3.7.4 Depreciation

Petitioner's Submission

The Petitioner has estimated depreciation based on the actual opening GFA for FY 2009-10 and revised estimated capitalization during the year. The reduction in depreciation is primarily on account of deferred capital expenditure.

Table 65: Depreciation for FY 2009-10 estimated by Petitioner

(Rs. crores)

Item	Approved as per MYT Order	Estimated by TPL-Ahmedabad
Depreciation	82.75	69.83

Commission's Analysis

Since capital expenditure has been considered as uncontrollable the Commission has treated depreciation as uncontrollable. The Commission has observed that the Petitioner has computed the depreciation using CERC depreciation rates on different categories of assets like plant & machinery, buildings, cables, etc as permitted by GERC Terms & Conditions of Tariff Regulations, 2005. The Commission for the purpose of APR of FY 2009-10 has considered the revised estimates of TPL-Ahmedabad.

The final summary for depreciation expenses is presented below

Table 66: Summary of depreciation expense for FY 2009-10

(Rs. crores)



Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Depreciation	74.71	69.83	69.83

3.3.7.5 Interest on Working Capital

Petitioner's Submission

In its petition, TPL-Ahmedabad has estimated the interest on working capital on a normative basis using the revised estimates for the various components of working capital. The interest rate has been considered to be 10.25%. As per the Petitioner the increase in the interest on working capital is primarily due to the increase in the power purchase cost.

Table 67: Interest on Working Capital as estimated by Petitioner for FY 2009-10

(Rs. crores)

Particulars	Approved as per MYT Order	Estimated by TPL-Ahmedabad
O&M Expenses for 1 month	14.80	17.00
1% of GFA for maintenance spares	12.26	23.48
Receivables equivalent to 2 months*	216.34	376.66
Normative Working Capital	243.40	417.14
Interest Rate	10.25%	10.25%
Interest on Working Capital	24.66	42.76

* The wide difference in the MYT Order value and the Petitioner's estimate is due to the fact that the Petitioner has not subtracted TPL-G (APP)'s receivables as has been done in the MYT Order.

Commission's Analysis

The Commission has recomputed the interest on working capital on normative basis using individual component values. The Commission while computing interest on working capital has subtracted the receivables of TPL-G (APP).

Table 68: Interest on Working Capital as computed by Commission

(Rs. crores)



Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Computed by Commission on a normative basis using approved values
O&M Expenses for 1 month	14.80	17.00	14.80
1% of GFA for maintenance spares	20.54	23.48	21.00
Receivables equivalent to 2 months	166.28*	376.66	177.39*
Normative Working Capital	201.63	417.14	213.19
Interest Rate	10.25%	10.25%	10.25%
Interest on Working Capital	20.67	42.76	21.85

* Receivables of TPL-G (APP) have been subtracted

3.3.7.6 Interest on security deposit

Petitioner's submission

The Petitioner submitted that the Commission, in the MYT Order, had approved the interest on security deposit for TPL-D as a whole, as 6% on the average balance of security deposit for the year. The expenses had been apportioned to Ahmedabad and Surat license areas based on the interest charges. TPL-Ahmedabad, in its petition, revised the estimate based on the opening balances and addition identified to each licensee area and estimated the expense to be Rs. 9.32 crores as against the value approved as per the MYT Order which was Rs. 9.72 crores.

Commission's analysis

The Commission directed TPL-Ahmedabad to furnish details of opening and closing balance of security deposit for the FY 2009-10. TPL-Ahmedabad, vide its letter 01-02-2010 furnished the opening balance of the Security deposits on 1st April 2009 as Rs. 161.81 crores and Closing balance as on 30th September as 173.90 crores. The final summary of interest on security deposit is presented below.



Table 69: Summary of Interest on security deposit for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Interest on security deposit	7.82	9.32	9.32

3.3.7.7 Return on Equity

Petitioner's Submission

TPL-Ahmedabad has computed the opening equity using opening equity of the integrated utility as approved in the MYT Order and apportioned it to TPL-Ahmedabad on the basis of audited opening GFA. The closing equity for Ahmedabad area in FY 2008-09 is taken as the opening equity for FY 2009-10. Based on the capitalization schedule for Ahmedabad supply area, the normative equity addition during the year is computed.

Table 70: Return on Equity as estimated by TPL-Ahmedabad for FY 2009-10

(Rs. crores)

Particulars	Approved as per MYT Order	Estimated by TPL-Ahmedabad
Opening equity	864.18	850.05
Equity addition during the year	139.51	60.03
Equity at end of the year	1003.69	910.08
Average equity	933.94	880.07
Return on Equity @ 14%	130.55	123.21

Commission's Analysis

The Commission has verified the opening equity submitted by the Petitioner from the audited accounts of FY 2008-09. It has further noted that the Petitioner has computed equity addition on a normative basis after deducting SLC and Grants from net capitalization. Thus, the Commission accepts the submission of the Petitioner.



Table 71: Summary of Return on Equity of TPL-Ahmedabad for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Opening equity	850.08	850.05	850.05
Equity addition during the year	120.41	60.03	60.03
Equity at end of the year	970.49	910.08	910.08
Return on Equity @ 14%	127.44	123.21	123.21

3.3.7.8 Income Tax

Petitioner's Submission

In the MYT Order, the Commission had computed income tax as per the GERC Terms & Conditions of Tariff Regulations, 2005 by applying the rate of 33.99% on the permissible return i.e. return on equity (RoE). TPL-Ahmedabad has revised the tax calculation by considering RoE as the post tax return (PAT). The Petitioner has claimed deduction under Section 80IA of the Income Tax Act, 1961 and has estimated income tax at the Minimum Alternate tax rate.

Table 72: Income Tax as estimated by TPL-Ahmedabad for FY 2009-10

(Rs. crores)

Particulars	Estimated by TPL-Ahmedabad
ARR including non-tariff income	2311.11
Total expense	2162.67
PBT	148.44
Income tax	25.23
PAT	123.21

Commission's Analysis

The Commission considers the permissible return for computation of income tax as Return on Equity, in line with the GERC Terms & Conditions of Tariff Regulations, 2005.



It has noted that the MAT rate applied by the Petitioner is 16.99%. Thus the Commission has recomputed income tax for FY 2009-10 using the MAT rate. The actual income tax paid will be considered during the process of true-up when the audited accounts will be available.

The final summary for income tax is shown below:

Table 73: Income tax approved by the Commission

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Income tax	43.32	25.23	20.93

3.3.7.9 Provision for bad debts

Petitioner's submission

In its petition, TPL-Ahmedabad has provided for bad debts to the extent of Rs. 3 crores as against the value approved as per the MYT Order wherein approved value was Rs. 2.05 crores.

Commission's analysis

The Commission has computed provision for bad debts as a percentage of revenue (0.1%) in line with the principle used in the MYT Order. The final summary for provision for bad debts is shown below.

Table 74: Summary of Provision for bad debts of TPL-Ahmedabad for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Provision for bad debts	2.05	3.00	1.97

3.3.7.10 Contingency Reserves



Petitioner's submission

TPL-Ahmedabad has maintained the contingency reserve unchanged with respect to MYT Order wherein the approved value was Rs. 0.6 crores.

Commission's analysis

The Commission has approved the estimation made by the Petitioner and considered the same for APR. The final summary for contingency reserve is shown below:

Table 75: Summary of Contingency reserve of TPL-Ahmedabad for FY 2009-10*(Rs. crores)*

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Contingency reserve	0.60	0.60	0.60

3.3.7.11 Non-Tariff Income**Petitioner's submission**

TPL-Ahmedabad, in its petition, estimated non-tariff income for FY 2009-10 based on actual 6 months data. TPL-Ahmedabad submitted that the non-tariff income was low as non-tariff income does not grow at a specific growth rate as certain components of non-tariff income are non-recurring and one-time in nature.

Table 76: Non-Tariff income estimated by TPL-Ahmedabad for FY 2009-10*(Rs. crores)*

Particulars	Approved as per MYT Order	Estimated by TPL-Ahmedabad
Non-Tariff income	80.44	51.17

Commission's analysis

The Commission directed the Petitioner to submit breakup of actual non-tariff income for H1 of FY 2009-10. TPL-Ahmedabad submitted this information vide its letter dated 01-02-2010. The information submitted is shown below:



Table 77: Breakup of Non-Tariff income submitted by TPL-Ahmedabad

(Rs. crores)

Non-Tariff income components	H1 of FY 2009-10 (Actual)
Street Lighting Maintenance contracts	2.64
Hire of Meters	13.43
Miscellaneous income	7.94
Provision of earlier years written back	-
Recovery of Bad debts	1.34
Insurance Claim	0.03
Other Interest	0.27
Total	25.65

The Commission has assessed this breakup and found the full year estimation for non-tariff income by the Petitioner to be appropriate.

The final summary for non-tariff income is presented below.

Table 78: Summary of Non-Tariff income of TPL-Ahmedabad for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Non-Tariff income	57.03	51.17	51.17

3.3.8 Summary of APR of TPL-Ahmedabad for FY 2009-10

Table 79: Summary of APR of TPL-Ahmedabad for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
Power Purchase Costs			



Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Ahmedabad	Revised Estimates considered for APR
TPL-G (APP)	895.33	-	907.00
SUGEN	359.69	-	389.10
GUVNL/Others	134.25	-	193.49
Wind Energy	96.90	-	24.53
UI		-	(12.94)
Total Power Purchase Costs	1486.17	1783.51	1501.17
Fixed Costs			
Employee expenses	66.38	86.66	66.38
R&M expenses	77.60	82.87	77.60
A&G expenses	33.65	34.46	33.65
Depreciation	74.71	69.83	69.83
Interest on loans	61.90	49.66	49.85
Interest on security deposit	7.82	9.32	9.32
Interest on working capital	20.87	42.76	21.85
Return on equity	127.44	123.21	123.21
Provision for bad debts	2.05	3.00	1.97
Contingency reserve	0.60	0.60	0.60
Income tax	43.32	25.23	20.93
Incentive to be paid to TPL-G (APP)*	-	-	-
Total Fixed Costs	516.33	527.60	475.20
Gross ARR	2002.50	2311.11	1976.37
Non-Tariff income	57.03	51.17	51.17
Net ARR	1945.47	2259.94	1925.20

* To be computed during true-up when actual generation figures are available

3.3.9 Gap / Surplus for FY 2009-10

The Commission has computed the gap / surplus for TPL-Ahmedabad for FY 2009-10 as shown below:



Table 80: Computation of Gap / Surplus for TPL-Ahmedabad for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by Petitioner	Revised Estimates considered for APR
Net ARR	1945.47	2259.94	1925.20
Revenue from sale of energy	1904.69	2149.52	1971.32
Revenue Gap / (Surplus)	40.77	110.42	(46.12)



3.4 Surat Distribution

3.4.1 Sales

Petitioner's submission

TPL-Surat has, in its petition, estimated sales for FY 2009-10 based on actual sales for the first 6 months of FY 2009-10 and extrapolated them for the complete year. TPL-Surat has submitted that 81% of total sales in Surat are attributed to the industrial and commercial consumers whose growth largely depends on the economic conditions. The sales estimates which had been revised downwards for FY 2009-10 on account of economic slowdown in the order dated 09-12-2009 have now been revised upwards on account of changing economic conditions. The summary of estimated sales is provided below.

Table 81: Sales for FY 2009-10 as estimated by TPL-Surat

(MUs)

Particulars	Approved as per MYT Order	H1 Actual FY 2009-10	Estimates submitted by TPL-Surat for FY 2009-10
Sales	3,411.00	1,586.05	2,965.32

TPL-Surat submitted that it has applied a lower YoY growth rate of 2% vis-à-vis a 3-year CAGR of 2.48% mainly because of current economic slowdown which has hit the diamond and textile industries. The category wise sales estimated are shown below.

Table 82: Consumer category wise sales for FY 2009-10 as estimated by TPL-Surat

(MUs)

Category	Approved as per MYT Order	H1 Actual FY 2009-10	Estimates submitted by TPL-Surat for FY 2009-10
Residential	597.00	311.56	544.57
Commercial	477.00	244.49	444.36



Category	Approved as per MYT Order	H1 Actual FY 2009-10	Estimates submitted by TPL-Surat for FY 2009-10
LTP	1812.00	810.5	1563.81
LTMD	249.00	85.6	159.41
HTMD	248.00	118.4	224.54
Others	28.00	12.84	25.98
DoE	0.00	2.66	2.66
Total	3411.00	1586.05	2965.32

The Petitioner has submitted the following reasons for deviation in sales estimation for each category:

Residential

It accounts for about 18 % of total sales. The sales estimation of the category is based on the actual sales achieved in the past 6 months. The sales estimates have been revised downwards in comparison to sales approved as per the MYT Order.

Commercial

It accounts for about 15% of total sales. In this category about 50% of the consumption relates to the load from the industrial LTP services and the remaining 50% comes from the pure commercial category consisting of shops, showrooms, offices etc. The Petitioner in comparison with sales approved in MYT Order revised downwards the sales estimates to this category in the order dated 9-12-2009. For the APR of FY 2009-10 the Petitioner has not changed the estimates.

Low Tension Power

It accounts for about 53 % of total sales. The sales under this category are mainly contributed by textile and diamond industry which has suffered slowdown due to the current economic conditions. The Petitioner has revised the sales estimates upwards as compared to sales estimated to this category for order dated 9-12-2009 because of revival of sales in the diamond industry.

Low Tension Maximum Demand

It accounts for around 5 % of the total sales. The consumption in this category is mainly contributed by diamond industries which had suffered a slowdown due to the current economic conditions prevailing in the international and national level. The estimates for



the sales have been revised upwards as compared to estimates made for order dated 9-12-2009 because of economic revival. The re estimated sales are though lower than the sales approved as per the MYT Order but they are higher than the sales estimates made for order dated 9-12-2009 order.

High Tension Maximum Demand

It accounts for 8% of the total sales. The consumption in this category is mainly attributed to the textile and diamond industries in the Surat license area. Further, the recession has also hit the consumption in this category as the diamond industries are scaling down their operation. Moreover the textile houses of higher load factor are likely to get replaced by occupants of lower load factor.

Others

It account for less than 1% of total sales. The sales in this category include GLP, Agriculture and Temporary.

Commission's analysis

The Commission has analyzed the sales estimated by the TPL-Surat and also the reasons behind the deviations submitted by TPL-Surat. The Commission had asked TPL-Surat to submit the FY 2009-10 nine months' actual sales which were submitted by the Petitioner on 5th March, 2010.

For estimating the sales for FY 2009-10, the Commission analyzed the 3-year CAGR without including the recession year FY 2008-09 (FY 2005-06 to FY 2007-08) and the 4-year CAGR including the recession year FY 2008-09 (FY 2005-06 to FY 2008-09). This was done to compute the effect of economic recession in FY 2008-09 on growth of the each category. The Commission also analyzed the year on year growth of the past three years (FY 2005-06 to FY 2008-09). Further, the Commission has considered the fact that in the last quarter of FY 2009-10, the growth rate of the economy has improved and the economy has shown signs of recovery. This is proved by the GDP growth rate estimated by RBI for FY 2009-10 as shown in the table below.

Table 83: GDP growth rates (RBI)

Particular	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10 (estimated)
GDP Growth rate	9.6%	8.7%	6.7%	7.5%

(%)



The Commission has applied suitable growth rates on FY 2008-09 actual sales to arrive at the sales for FY 2009-10. A higher growth rate than TPL-Surat's estimate was considered in case of Residential category considering the minimal impact of economic recession on it in the past. The Residential category has grown at a 4-year CAGR of 4.27% whereas TPL-Surat has estimated the FY 2009-10 growth of the category at just 1.3%. A similar approach has been used for HTMD category after considering the actual 9 months' sales. For the other categories, the sales estimated by TPL-Surat have been accepted by the Commission considering the previous years' growth rates. The table below gives the 3-year CAGR, 4-year CAGR, growth rates considered by the Petitioner and the growth rates considered by Commission for major categories.

Table 84: Growth Rates for Sales Estimation: TPL-Surat

(%)

Categories	3-year CAGR (FY 2005-06 to FY 2007-08)	4-year CAGR (FY 2005-06 to FY 2008-09)	YoY growth rate FY 2008-09 over FY 2007-08	YoY growth rate FY 2009-10 over FY 2008-09	
				TPL estimates	Estimated by Commission
Residential	4.35%	4.27%	4.00%	1.30%	5.00%
Commercial	5.00%	4.53%	3.10%	4.80%	4.80%
LTP	2.58%	0.51%	-5.50%	2.20%	2.20%
LTMD	7.63%	2.32%	-12.10%	-3.00%	-3.00%
HTMD	0.15%	0.26%	0.60%	2.00%	5.00%*

* A high growth rate is used considering the 9 months actual sales of HTMD category

The table below gives the summary of the sales for TPL-Surat for FY 2009-10. The values computed by the Commission are in line with the 9 months' actual sales for FY 2009-10

Table 85: Summary of FY 2009-10 sales for TPL-Surat

(MUs)

Category	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	9 months' actuals for FY 2009-10	Revised Estimates considered for APR



Category	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	9 months' actuals for FY 2009-10	Revised Estimates considered for APR
Residential	544.04	544.57	471.00	564.65
Commercial	436.27	444.36	382.74	444.36
LTP	1515.99	1563.81	1327.40	1563.81
LTMD	133.33	159.41	136.34	159.42
HTMD	225.30	224.54	192.53	231.25
Others	30.26	28.63	25.91	28.63
Total	2885.18	2965.32	2535.92	2992.11

3.4.1.1 Number of installations

Petitioner's submission

The Petitioner has estimated the number of installations for Surat supply area based on the actual data available for April, 2009 to September, 2009 and the feedback from end use survey. The approved and revised estimates for the number of installations for FY 2009-10 are tabulated below. The number of installations has shown a declining trend on account of reduction in residential category owing to the saturation in high load potential residential areas & delay in materialization of residential projects.

Table 86: No. of installations for TPL-Surat estimated by Petitioner for FY 2009-10

Category	Approved as per the MYT Order	Estimates submitted by TPL-Surat for FY 2009-10
Residential	393879	366347
Commercial	164476	166290
LTP	61214	61440
LTMD	1232	1060
HTMD	184	181
Others	2448	2345
Total	623433	597663

Commission's analysis



The Commission has re-estimated the number of installations of TPL-Surat by analyzing the 3-year CAGR from FY 2005-06 to FY 2007-08, the 4-year CAGR from FY 2005-06 to FY 2008-09 and the YoY growth in sales for the past 3 years. These were compared with the growth rates estimated by TPL-Surat. The Commission has estimated the number of installations for FY 2009-10 by applying the actual growth rate of FY 2008-09 over FY 2007-08 on the actual number of installations of FY 2008-09. The table below gives the different growth rates which were analyzed by the Commission and the growth rates considered by Commission for FY 2009-10.

Table 87: Growth rates for number of installations

(%)

Category	3-year CAGR (FY 2005-06 to FY 2007-08)	4-year CAGR (FY 2005-06 to FY 2008-09)	FY 2008-09 over FY 2007-08 (Actual)	FY 2009-10 over FY 2008-09 (Estimated by TPL)	FY 2009-10 over FY 2008-09 (Considered by Commission)
Residential	2.80%	2.80%	2.80%	-2%	2.80%
Commercial	2.38%	2.47%	2.70%	3%	2.70%
LTP	1.84%	1.83%	1.80%	6%	1.80%
LTMD	8.85%	7.69%	4.30%	1%	4.30%
HTMD	2.03%	4.51%	12.30%	5%	12.30%
Others	2.72%	3.60%	6.30%	-8%	6.30%

The table below provides the number of installations approved by the Commission for the year FY 2009-10.

Table 88: Number of installations approved for FY 2009-10

Category	Approved as per Order dated 9-12-2009	Revised Estimates considered for APR
Residential	383514	384924
Commercial	164626	165207
LTP	58796	59053
LTMD	1080	1090
HTMD	179	194
Others	2647	2707
Total	610842	613175



3.4.2 Revenue from sale of power

Petitioner's submission

TPL-Surat has estimated revenues of Rs. 1310.02 crores for FY 2009-10 based on 6 months of actual figures. These include fuel cost adjustment charges and revenues from UI sales.

Commission's analysis

The Commission has recomputed the revenue considering the revised estimates for sales and number of installations. The revenue computed by the Commission does not include the component of fuel cost adjustment since the Commission has considered the MYT Order approved values while computing the fuel and power purchase cost. However, the FPPPA recovery of Rs. 45.68 Crores due to switch over from monthly to quarterly basis done in FY 2008-09 has been included in the revenue.

Table 89: Revenue for TPL-Surat approved by Commission

(Rs. crores)

Particular	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Revenue from sale of power	1090.94	1299.17	1172.32*

(*includes FPPPA recovery of Rs. 45.68 Crores due to switch over from monthly to quarterly basis done in FY 2008-09)

3.4.3 Distribution loss

Petitioner's submission

The Commission, in the MYT Order approved distribution loss for Surat area at 6.00% for FY 2009-10. As per the Petitioner the H1 actual loss for TPL-Surat has been 5.38%. For estimating the distribution loss for FY 2009-10, the Petitioner has maintained the distribution loss at the MYT Order approved level of 6.00%.



Commission's analysis

The Commission analyzed the submitted information on distribution loss of TPL-Surat. The Commission observes that to arrive at a realistic level of energy requirement for FY 2009-10, the actual loss level for H1 FY 2009-10 should be considered as the loss for the whole year FY 2009-10. The H1 actual loss for FY 2009-10 was 5.38% which is less than the loss level estimated by the Petitioner. The distribution loss was already approved at 6.00% in the MYT Order. Therefore, although the Commission doesn't approve the distribution loss again for FY 2009-10, but for the purpose of realistic assessment of energy requirement the Commission considers 5.38% as the distribution loss for FY 2009-10.

The Commission further clarifies that during the process of true-up, the MYT Order approved value of distribution loss shall be considered for computation of gain/loss.

The final summary for distribution loss is provided below:

Table 90: Distribution loss estimated by Commission

Particular	Calculated as per Order dated 9-12-2009	Estimated by TPL-Surat	Distribution loss considered for Energy requirement for FY 2009-10
Distribution loss	5.51%	6.00%	5.38%

3.4.4 Energy Requirement

Petitioner's submission

The Commission, in MYT Order, had approved the energy requirement considering a distribution loss of 6.00% and a transmission loss of 60 MUs. The variation in the energy requirement estimated by the Petitioner vis-à-vis the approved value as per MYT Order is mainly on account of change in sales and variation in transmission loss.

Table 91: Energy requirement estimated by TPL-Surat

(MUs)



Particulars	Approved as the MYT Order	Estimates submitted by TPL-Surat for FY 2009-10
Energy Sales	3411.00	2965.32
Distribution loss (%)	6.00%	6.00%
Distribution loss	218.00	189.28
Energy input at distribution level	3629.00	3154.60
Transmission loss	60.00	37.02
Energy requirement	3689.00	3191.62

Commission's analysis

The Commission has recomputed the energy requirement based on the approved sales and distribution loss. The transmission loss as a percentage of energy requirement has been maintained at the level estimated by the Petitioner.

Table 92: Summary of Energy requirement for TPL-Surat

(MUs)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Energy Sales	2885.18	2965.32	2992.11
Distribution loss (%)	5.51%	6.00%	5.38%
Distribution loss	168.24	189.28	170.13
Energy input at distribution level	3053.43	3154.60	3162.24
Transmission loss	42.29	37.02	37.11
Energy requirement	3095.72	3191.62	3199.35

3.4.5 Energy Availability

Petitioner's submission

The Commission, in the MYT Order, had approved TPL-G (SUGEN), GUVNL and Wind Energy as power sources for TPL-Surat. In the current petition the Petitioner has



estimated the Energy Availability for TPL-D as a whole and not for each of the distribution areas separately.

TPL-D has submitted that there has been increased generation from TPL-G (APP) due to which Energy Availability from this source has increased. Further, GUVNL has unilaterally decided to stop the supply to TPL-D, with the commissioning of TPL-G (SUGEN). Therefore, TPL-D has met the deficit due to unavailability of supply from GUVNL through the merchant capacity of TPL-G (SUGEN). With regards to procurement from wind power, the Petitioner has stated that as per GERC (Power Procurement from Renewable Sources) Regulations, 2005, all the distribution licensees in the State of Gujarat need to procure power from renewable sources. The regulation specified minimum percentage of procurement of power till FY 2008-09. In the absence of guideline for RPPO for FY 2009-10, TPL-D has assumed the obligation to be 2% of the energy requirement.

Table 93: Energy Availability estimated by TPL-D

(MUs)

Energy sources	H1 Actual	Estimated for FY 2009-10
TPL-G (APP)	2,014.20	3,818.27
TPL-G (SUGEN)	1,068.08	3288.99
GUVNL / Others	1,630.83	1624.41
Wind energy	73.41	117.35
UI Pool	(53.48)	(53.48)
Total	4,733.04	8795.54

Commission's analysis

In order to compute the Energy Availability for each of the distribution areas separately, the Commission had directed the Petitioner to submit details of source-wise energy supplied to Ahmedabad and Surat areas separately. The same was submitted by the Petitioner vide its letter dated 2nd March, 2010. The power purchase from GUVNL/Others and wind has been approved as per the estimates submitted by the TPL-Surat. The Commission has subtracted the net UI sales from the power purchase to arrive at the power purchase quantum of TPL-Surat. The energy from SUGEN has been considered more than the estimates submitted by the TPL Surat as the Commission has estimated that SUGEN shall be used to meet the energy requirement arising due to the increase in sales.



Table 94: Summary of Energy Availability for TPL-Surat

(MUs)

Energy	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
TPL-G (SUGEN)	2414	-	2173.44
GUVNL/other sources	510	-	1000.25
Wind energy	172	-	47.47
UI	-	-	(21.81)
Total availability	3096	-	3199.35

3.4.6 Power purchase cost

Petitioner's submission

The Petitioner has submitted power procurement rates from each source for the whole of TPL-D and not for each distribution area separately. Based on the rates from each source and estimation of energy procured, TPL-D has estimated the total power purchase cost as Rs. 2799.29 crores. The purchase rate for supply from TPL-G (APP) is estimated to be Rs. 2.82 / kWh, computed on the basis of revised ARR estimates of TPL-G (APP). The average rate of power purchase from GUVNL, including the FPPPA amounts to Rs. 3.85/kWh. The power purchase rate for supply from renewable sources is taken as Rs. 3.46/kWh.

Table 95: Power purchase cost estimated by TPL-D for FY 2009-10

Sources	Estimated by TPL-D for FY 2009-10
TPL-G (APP)	
Quantity in MUs	3,818.27
Rate in Rs./kWh	2.82
Cost in Rs. crores	1,076.11
TPL-G (SUGEN)	
Quantity in MUs	3,288.99
Rate in Rs./kWh	3.22
Cost in Rs. crores	1,057.45



Sources	Estimated by TPL-D for FY 2009-10
GUVNL	
Quantity in MUs	1,624.41
Rate in Rs./kWh	3.85
Cost in Rs. crores	625.14
Wind energy	
Quantity in MUs	117.35
Rate in Rs./kWh	3.46
Cost in Rs. crores	40.59
Total	
Quantity in MUs	8,795.54
Rate in Rs./kWh	3.18
Cost in Rs. crores	2,799.29

Commission's analysis

The Commission had asked the Petitioner to submit the power purchase details separately for Ahmedabad and Surat distribution areas. The same was submitted by the Petitioner vide the letter dated 2nd March, 2010. For the power purchase from GUVNL/Others, SUGEN and Wind the Commission has considered the power purchase cost per unit at the MYT Order approved level. The rate approved in the MYT Order has been considered since the Commission has decided to approve all power purchase and generation related costs at the MYT Order approved values. Further, the Commission has subtracted the net UI revenues from power purchase cost to arrive at the total power purchase cost of TPL-Surat.

Table 96: Power purchase cost approved by Commission

Sources	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
TPL-G (SUGEN)			
Quantity in MUs	2414.00	-	2173.44
Rate in Rs./kWh	2.98	-	2.98
Cost in Rs. crores	719.37	-	647.69
GUVNL/Other sources			



Sources	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Quantity in MUs	509.60	-	1000.25
Rate in Rs./kWh	3.10	-	3.10
Cost in Rs. crores	157.97	-	310.08
Wind energy			
Quantity in MUs	172.12	-	47.47
Rate in Rs./kWh	3.37	-	3.51
Cost in Rs. crores	58.01	-	16.66
UI Pool			
Quantity in MUs	-	-	(21.81)
Rate in Rs./kWh	-	-	-
Cost in Rs. crores	-	-	(10.86)
Total			
Quantity in MUs	3095.72	-	3199.35
Rate in Rs./kWh	3.02	-	3.01
Cost in Rs. crores	935.35	1015.77	963.56

3.4.7 Fixed Cost components

3.4.7.1 Operations & Maintenance (O&M) expenses

Petitioner's Submission

The Petitioner has submitted that it has estimated the O&M expense for FY 2009-10 based on 6 months of actual data which is provided in the table below.

Table 97: O&M expenses estimated by TPL-Surat

(Rs. crores)

O&M Expense	Approved as per MYT Order	TPL-Surat Estimate	
		H1 Actual	FY 2009-10
Employee Expenses	35.70	17.36	35.70



O&M Expense	Approved as per MYT Order	TPL-Surat Estimate	
		H1 Actual	FY 2009-10
R&M Expenses	28.10	10.00	28.10
A&G Expenses	26.12	12.64	26.12
Total O&M	89.92	40.00	89.92

The Petitioner has estimated the O&M expenses for TPL-Surat at the same level as was approved as per the MYT Order.

Commission's Analysis

The Commission has considered the O&M expenses as controllable expenses and has approved them at values approved as per the Order dated 9-12-2009.

Table 98: O&M expense summary for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Employee expenses	35.70	35.70	35.70
R&M expenses	28.10	28.10	28.10
A&G expenses	26.12	26.12	26.12
Total O&M expenses	89.92	89.92	89.92

3.4.7.2 Capital expenditure, Capitalization & Sources of financing

Petitioner's Submission

The Petitioner has estimated the capital expenditure based on the actual expenditure for the first half of FY 2009-10. In comparison with the values approved as per the MYT Order, TPL-Surat revised upwards the estimates for capital expenditure in the current petition.

Table 99: Capital expenditure estimated by TPL-Surat

(Rs. crores)



Capital expenditure items	Approved as per MYT Order	Estimated by TPL-Surat
EHV	14.58	13.34
HT Network	43.3	26.79
LT Network	17.21	12.27
Metering	19.97	8.44
220 kV line	-	61.54
Customer Care & IT Initiatives	6.19	15.25
Total	101.25	137.63

The main reasons for increase in capital expenditure as provided by TPL-Surat are discussed below.

Investment in EHV / HT / LT Network

The revised estimate for the capital investment for EHV / HT / LT network is same as the revised estimate in the last petition for FY 2009-10.

Investment in Metering: The capital investment under this head has been revised to Rs. 8.44 Crores as against the revised estimate of Rs. 15.03 Crores in the last petition. This reduction in investment is mainly on account of the following reasons:

- The expenditure under the head of meters, meter equipments & accessories comprises of expenditure to be incurred for procuring meters & related accessories for catering to Load growth as well as Routine Meter Replacement. The expenditure has been reduced on account of reduction in the procurement of meters, meter equipments and accessories as compared to the initial estimates.
- The procurement of Advanced Metering System (AMR) has been deferred to FY 2010-11 mainly on account of the slowdown and recession which set in the industrial sector during the FY 2008-09 and start of FY 2009-10. However, considering the recovery in the economy, TPL-D proposes to carry out the AMR project in the FY 2010-11.

Investment in Customer Care & IT

The capital investment under this head has been revised to Rs. 15.25 Crores as against the revised estimate of Rs. 18.18 Crores in the last petition. This reduction in investment is mainly on account of the following reasons:



- Geographical Information System (GIS) - The additional cost envisaged to be incurred in FY 2009-10 relating to the activity for Integration of GIS with SCADA/EMS/DMS & SAP software has been deferred to FY 2010-11.
- Information Technology - A part of SAP integration & licensing cost for FY 2009-10 has been deferred to FY 2010-11. This is as per the revised schedule of the SAP implementation.
- Customer Care – Total expenditure is proposed to reduce to 8.93 Crores from 10.40 Crores due to the deferment in setting up of Customer Interaction Centers (CIC) at A & B -station at a cost of Rs. 1.15 Crores to FY 2010-11

Investment in 220 kV line (between Surat distribution area and TPL-G (SUGEN))

No change is proposed in the revised estimate for capital expenditure for commissioning of 220kV F GIS receiving station to receive Power from TPL (SUGEN) to Surat distribution area in FY 2009-10.

Commission's Analysis

The Commission analyzed that the Petitioner has estimated capital expenditure requirement higher than capital expenditure approved as per the MYT Order but lesser than the Petitioner's estimates for order dated 09-12-2009. The capital expenditure has been estimated higher for customer care initiatives and the 220 KV line. All the other subheads like metering, EHV and HT have seen a decline in capital expenditure. The decline of capital expenditure for those sub heads has mainly been because of slow down in the economy. Based on a review of the reasoning submitted by the Petitioner, the Commission has treated capital expenditure as an uncontrollable expense. In this regard the Commission has drawn reference to Clause 9.6 of MYT regulations which provides for economy wide influences such as economic slowdown to be treated as uncontrollable factor:

9.6 ... For the purpose of these Regulations, the term uncontrollable factors shall include the following factors which were beyond the control of, and could not be mitigated by, the applicant, as determined by the Commission-

(a) ...

(b) ...

(c) Economy-wide influences, such as unforeseen changes in inflation rate, market-interest rates, taxes and statutory levies.



The Commission has further estimated the quantum of debt and equity using the normative debt equity ratio of 70:30.

Table 100: Capitalization and sources of financing for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Capitalization	201.62	178.72	178.72
Less: SLC additions	-	9.83	9.83
Less: Grant in aids	-	5.96	5.96
Net Capitalization	201.62	162.93	162.93
Normative Debt (@70%)	141.13	114.05	114.05
Normative Equity (@30%)	60.49	48.88	48.88

The Commission has observed that often utilities actually incur significantly lesser capital expenditure than what was approved while determining the tariff. The Commission is therefore, of the view that before including any scheme in the tariff proposal, the licensee shall obtain approval of the Commission as provided in Section 65 (c) of the GERC (Terms and Conditions of Tariff) Regulations, 2005.

The Petitioner has further provided details of estimated capitalization and thus derived the normative debt and equity financing requirement

Table 101: Capitalization and Debt: Equity requirement estimated by TPL-Surat

(Rs. crores)

Particular	Estimated by TPL-Surat
Capital expenditure during the year	137.63
Capitalization during the year	178.72
Less: SLC additions	9.83
Less: Grant in aids	5.96
Normative Debt @ 70%	114.05
Normative Equity @ 30%	48.88



3.4.7.3 Interest Expenses

Petitioner's Submission

In the MYT Order, the Commission had approved the interest expenses for the entire distribution business (Ahmedabad & Surat combined) based on the actual opening balance of the loans for FY 2008-09 and apportioned it between Ahmedabad and Surat license areas in proportion to approved capital expenditure for the respective year. Starting with the order dated 09-12-2009, TPL-D identified loans for each area and reallocated the interest expenses on the existing loans on the basis of opening balances of the loans for each financial year for each area. Thus TPL-Surat has worked out the interest on existing loans as follows:

Table 102: Interest Expense estimated by TPL-Surat on existing loans for FY 2009-10

(Rs. crores)

Existing loan sub-heads	Estimated in the Petition
APDRP	
Opening balance	24.40
Interest rate	9.00%
Interest expense	2.17
HDFC II	
Opening balance	40.39
Interest rate	11.50%
Interest expense	3.95
IDBI	
Opening balance	20.96
Interest rate	11.00%
Interest expense	2.19
IDFC-I	
Opening balance	50.00
Interest rate	8.23%
Interest expense	3.42
IDFC-II	
Opening balance	250.00



Existing loan sub-heads	Estimated in the Petition
Interest rate	11.00%
Interest expense	25.29
LIC	
Opening balance	97.50
Interest rate	11.00%
Interest expense	10.23
Total	
Opening balance	483.24
Interest expense	47.25

Further, TPL-Surat has also worked out the interest expense on new loans on a normative basis as follows:

Table 103: Interest expense to meet capitalization for TPL-Surat for FY 2009-10

(Rs. crores)

Particular	Estimated by TPL-Surat
Capital expenditure during the year	137.63
Capitalization during the year	178.72
Less: SLC additions	9.83
Less: Grant in aids	5.96
Normative Debt @ 70%	114.05
Opening Balance	69.04
New Borrowings	45.01
Closing Balance	114.05
Interest expense	10.54

Commission's Analysis

In order to assess the interest on existing loans, the Commission studied the data formats submitted by the Petitioner detailing the schedule of loans obtained. It has reviewed the figures of opening and closing balances and the interest rates used and found them to be appropriate. Further, the Commission observed that TPL-Surat has considered the loan amount of Rs. 45.01 crores disbursed from Bank of Baroda (BoB) as a new loan and computed the interest on new loan accordingly. The Commission has



considered this loan as a part of existing loan and not as a new loan since it was sanctioned in FY 2008-09 and disbursed in FY 2009-10. The Commission has considered the estimates of the TPL-Surat while approving the interest on existing loans and added the interest on BoB loan (Rs. 3.32 crores).

While computing the interest on new loans, the Commission has reduced the disbursed BoB loan amount from the normative debt requirement. It has observed that the interest rate of 11% used by the Petitioner is in line with the market rates. Thus the Commission has computed the interest expense on new loans as follows:

Table 104: Interest expense on new loans

(Rs. crores)

Particular	Computed by Commission
Normative Debt @ 70%	114.05
Less Net Disbursement from BoB	45.01
Opening Balance	0.00
Net addition	69.04
Closing Balance	69.04
Interest expense	3.80

The final summary for interest expense is shown below.

Table 105: Summary of interest expense for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Approved for FY 2009-10
Interest expenses	55.19	57.79	54.37

3.4.7.4 Depreciation

Petitioner's Submission



In its petition the Petitioner has estimated depreciation based on the actual opening GFA for FY 2009-10 and revised estimated capitalization during the year. The reduction in depreciation is primarily on account of deferred capital expenditure.

Table 106: Depreciation for FY 2009-10 estimated by Petitioner

(Rs. crores)

Particulars	Approved as per MYT Order	Estimated by TPL-Surat
Depreciation	43.42	37.48

Commission's Analysis

Since capital expenditure has been considered as uncontrollable the Commission has treated depreciation as uncontrollable. The Petitioner has computed the depreciation using CERC depreciation rates on different categories of assets like plant & machinery, buildings, cables, etc as permitted by GERC Terms & Conditions of Tariff Regulations, 2005. The Commission for the purpose of APR of FY 2009-10 has considered the revised estimates of TPL-Surat.

The final summary for depreciation expenses is presented below.

Table 107: Summary of depreciation expense for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Depreciation	38.91	37.48	37.48

3.4.7.5 Interest on Working Capital

Petitioner's Submission

TPL-Surat has estimated the interest on working capital on a normative basis using the revised estimates for the various components of working capital. The interest rate has been considered to be 10.25%. As per the Petitioner the increase in the interest on working capital is primarily due to the increase in the power purchase cost.



Table 108: Interest on Working Capital estimated by Petitioner for FY 2009-10

(Rs. crores)

Particulars	Approved as per MYT Order	Estimated by TPL-Surat
O&M Expenses for 1 month	7.49	7.49
1% of GFA for maintenance spares	3.87	13.31
Receivables equivalent to 2 months	231.96	216.82
Normative Working Capital	243.32	237.62
Interest Rate	10.25%	10.25%
Interest on Working Capital	24.94	24.36

Commission's Analysis

The Commission has recomputed the interest on working capital on normative basis using individual component values.

Table 109: Interest on Working Capital as computed by Commission

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Computed by Commission on a normative basis using approved values
O&M Expenses for 1 month	7.49	7.49	7.49
1% of GFA for maintenance spares	11.42	13.31	11.53
Receivables equivalent to 2 months	181.59	216.82	195.39
Normative Working Capital	200.50	237.62	214.41
Interest Rate	10.25%	10.25%	10.25%
Interest on Working Capital	20.55	24.36	21.98

3.4.7.6 Interest on security deposit



Petitioner's submission

The Petitioner submitted that the Commission, in the MYT Order, had approved the interest on security deposit for TPL-D as a whole, as 6% on the average balance of security deposit for the year. The expenses had been apportioned to Surat and Surat license areas based on the interest charges. TPL-Surat, in its petition, revised the estimate based on the opening balances and addition identified to each licensee area and estimated the expense to be Rs. 8.21 crores as against the value approved as per the MYT Order which was Rs. 6.47 crores.

Commission's analysis

The Commission directed TPL-Surat to furnish details of opening and closing balance of security deposit for the FY 2009-10. TPL-Surat, vide its letter 01-02-2010 furnished the opening balance of the Security deposits on 1st April 2009 as Rs. 137.44 crores and Closing balance as on 30th September as 141.18 crores. The final summary of interest on security deposit is presented below.

Table 110: Summary of Interest on security deposit*(Rs. crores)*

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Interest on security deposit	8.22	8.21	8.21

3.4.7.7 Return on Equity**Petitioner's Submission**

TPL-Surat has computed the opening equity using opening equity of the integrated utility as approved in the MYT Order and apportioned it to TPL-Surat on the basis of audited opening GFA. The closing equity for Surat area in FY 2008-09 is taken as the opening equity for FY 2009-10. Based on the capitalization schedule for Surat supply area, the normative equity addition during the year is computed.

Table 111: Return on Equity as estimated by TPL-Surat for FY 2009-10*(Rs. crores)*

Particulars	Approved as per MYT Order	Estimated by TPL-Surat
-------------	---------------------------	------------------------



Particulars	Approved as per MYT Order	Estimated by TPL-Surat
Opening equity	532.62	477.78
Equity addition during the year	26.24	48.88
Equity at end of the year	558.86	526.66
Return on Equity @ 14%	75.86	70.31

Commission's Analysis

The Commission has verified the opening equity submitted by the Petitioner from the audited accounts of FY 2008-09. It has further noted that the Petitioner has computed equity addition on a normative basis after deducting SLC and Grants from net capitalization. Thus the Commission accepts the submission of the Petitioner.

Table 112: Summary of Return on Equity of TPL-Surat for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Opening equity	477.88	477.78	477.78
Equity addition during the year	60.49	48.88	48.88
Equity at end of the year	538.37	526.66	526.66
Return on Equity @ 14%	71.14	70.31	70.31

3.4.7.8 Income Tax

Petitioner's Submission

In the MYT Order, the Commission had computed income tax as per the GERC Terms & Conditions of Tariff Regulations, 2005 by applying the rate of 33.99% on the permissible return i.e. return on equity (RoE). TPL-Surat has revised the tax calculation by considering RoE as the post tax return (PAT). The Petitioner under Section 80IA of the Income Tax Act, 1961 has claimed deduction for Income tax. Therefore, TPL-Surat has considered MAT rate instead of income tax rate of 33.99%. The submission of the Petitioner is provided in the table below.



Table 113: Income Tax as estimated by TPL-Surat for FY 2009-10

(Rs. crores)

Particulars	Estimated by TPL-Surat
ARR including non-tariff income	1319.90
Total expense	1235.19
PBT	84.71
Income tax	14.40
PAT	70.31

Commission's Analysis

The Commission considers the permissible return for computation of income tax as Return on Equity, in line with the GERC Terms & Conditions of Tariff Regulations, 2005. It has noted that the MAT rate applied by the Petitioner is 16.99%. Thus the Commission has recomputed income tax for FY 2009-10 using the MAT rate. The actual income tax paid will be considered during the process of true-up when the audited accounts will be available.

The final summary for income tax is shown below:

Table 114: Summary of Income tax of TPL-Surat for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Income tax	24.18	14.40	11.95

3.4.7.9 Provision for bad debts

Petitioner's submission

In its petition, TPL-Surat has provided for bad debts to the extent of Rs. 1.25 crores which is close to the value approved as per the MYT Order wherein approved value was Rs. 1.27 crores.

Commission's analysis



The Commission has computed provision for bad debts as a percentage of revenue (0.1%) in line with the principle used in the MYT Order. The final summary for provision for bad debts is shown below.

Table 115: Summary of Provision for bad debts of TPL-Surat for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Provision for bad debts	1.27	1.25	1.17

3.4.7.10 Contingency Reserves

Petitioner's submission

TPL-Surat has maintained the contingency reserve unchanged with respect to value approved as per the MYT Order, i.e. Rs. 0.4 crores.

Commission's analysis

The Commission has approved the estimation made by the Petitioner and considered the same for APR. The final summary for contingency reserve is shown below:

Table 116: Summary of Contingency reserve of TPL-Surat for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Contingency reserve	0.4	0.4	0.4

3.4.7.11 Non-Tariff Income

Petitioner's submission

TPL-Surat, in its petition, estimated non-tariff income for FY 2009-10 based on actual 6 months data. TPL-Surat submitted that the non-tariff income was low as non-tariff



income does not grow at a specific growth rate as certain components of non-tariff income are non-recurring and one-time in nature.

Table 117: Non-Tariff income estimated by TPL-Surat for FY 2009-10

(Rs. crores)

Particulars	Approved as per MYT Order	H1 Actual FY 2009-10	Estimated by TPL-Surat
Non-Tariff income	28.20	10.01	19.00

Commission's analysis

The Commission directed the Petitioner to submit breakup of actual non-tariff income for H1 of FY 2009-10. TPL-Surat submitted this information vide its letter dated 01-02-2010. The information submitted is shown below:

Table 118: Breakup of Non-Tariff income submitted by TPL-Surat

(Rs. crores)

Non-Tariff income components	H1 of FY 2009-10 (Actual)
Street Lighting Maintenance contracts	-
Hire of Meters	4.93
Miscellaneous income	4.71
Provision of earlier years written back	0.00
Recovery of Bad debts	0.33
Insurance Claim	0.01
Other Interest	0.04
Total	10.01

The Commission has assessed this breakup and found the full year estimation for non-tariff income by the Petitioner to be appropriate.

The final summary for non-tariff income is presented below.

Table 119: Summary of Non-Tariff income of TPL-Surat for FY 2009-10

(Rs. crores)



Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Non-Tariff income	22.45	19.00	19.00

3.4.8 Summary of APR of TPL-Surat for FY 2009-10

Table 120: Summary of APR of TPL-Surat for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Power Purchase Costs			
SUGEN	719.37	-	647.69
GUVNL	157.97	-	310.08
Wind Energy	58.01	-	16.66
UI	-	-	(10.86)
Total Power Purchase Costs	935.35	1015.77	963.56
Fixed Costs			
Employee expenses	35.70	35.70	35.70
R&M expenses	28.10	28.10	28.10
A&G expenses	26.12	26.12	26.12
Depreciation	38.91	37.48	37.48
Interest on loans	55.19	57.79	54.37
Interest on security deposit	8.22	8.21	8.21
Interest on working capital	20.57	24.36	21.98
Return on equity	71.14	70.31	70.31
Provision for bad debts	1.27	1.25	1.17
Contingency reserve	0.40	0.40	0.40
Income tax	24.18	14.40	11.95
Total Fixed Costs	309.80	304.12	295.78
Gross ARR	1245.15	1319.90	1259.35



Particulars	Approved as per Order dated 9-12-2009	Estimated by TPL-Surat	Revised Estimates considered for APR
Non-Tariff Income	22.45	19.00	19.00
Net ARR	1222.70	1300.89	1240.35

3.4.9 Gap / Surplus for FY 2009-10

The Commission has computed the gap / surplus for TPL-Surat for FY 2009-10 as shown in the table below.

Table 121: Computation of Gap / Surplus for TPL-Surat for FY 2009-10

(Rs. crores)

Particulars	Approved as per Order dated 9-12-2009	Estimated by Petitioner	Revised Estimates considered for APR
Net ARR	1222.70	1300.89	1240.35
Revenue from sale of energy	1090.94	1310.02	1172.32
Revenue Gap / (Surplus)	131.77	(9.13)	68.02



4 Aggregate Revenue Requirement for FY 2010-11

4.1 TPL-Generation

4.1.1 Availability

Petitioner's submission

In its petition, TPL-G (APP) has submitted that it has scheduled the outages for its coal based stations as per the Central Electricity Authority (CEA) guidelines for plants that have undergone renovation & modernization. According to TPL-G (APP), CEA recommends an outage for statutory and efficiency related job for boiler overhaul and capital maintenance of turbine & generator. TPL-G (APP) has computed the availabilities of individual stations after accounting for the annual planned shut down for the stations to undertake maintenance and statutory inspections and the assumed forced outages during FY 2010-11. The Petitioner has revised the Availability estimates for all the stations. The Availability has been estimated downwards in comparison with the PAF approved as per the MYT Order. TPL-G (APP) has estimated the outage schedule for all the stations as shown below.

Table 122: Outage schedule submitted by TPL-G (APP) for FY 2010-11

(days)

Stations	Estimated by Commission in the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
C Station	25	21
D Station	25	53
E Station	15	15
F Station	15	15
Vatva Gas CCPP	GTG 1 – 06 GTG 2 – 22	GTG 1 – 06 GTG 2 – 22



Stations	Estimated by Commission in the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
	STG – 05	STG – 05

TPL-G (APP) has stated that it has planned the following outage schedule during FY 2010-11 for preventive maintenance and upgradation:

- C station for 21 days for boiler annual maintenance, Boiler Residual Life Assessment (RLA) and commissioning of Induced Draught Cooling Tower (IDCT);
- D station for 53 days boiler annual maintenance and ESP extension work, which was earlier planned to be carried out in FY 2009-10, but has been deferred to FY 2010-11
- E station for 15 days for boiler annual maintenance and boiler and generation RLA;
- F station for 15 days for boiler annual maintenance and HPH replacement;
- GTG -1 for 1 day for gas turbine compressor washing and 5 days for annual maintenance and HRSG annual survey;
- GTG – 2 for 1 day for gas turbine compressor washing and 21 days for GT major inspection; and
- STG for 5 days for annual maintenance and HRSG annual survey.

Based on maintenance and up-gradation schedule and other technical constraints, TPL-G (APP) has projected the following PAF.

Table 123: Station wise Availability for FY 2010-11 as estimated by TPL-G (APP)

(%)

Stations	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
C Station	91.03	90.48
D Station	90.73	83.09
E Station	93.71	93.21



Stations	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
F Station	94.02	93.21
Vatva Gas CCPP	95.63	95.09

Commission's analysis

The Commission has reviewed the submission made by the Petitioner for the FY 2010-11 with significant focus on the reasons for estimated drop in PAF of stations D. The drop is mainly on account of the deferment of the of ESP field extension, overhauling of existing ESP, control replacement and ash handling system extension from FY 2009-10 to FY 2010-11. The estimate for all the stations has been less than the PAF approved as per the MYT Order. Considering the reasons submitted by the Petitioner, the Commission approves PAF as per the estimates of the Petitioner.

The PAF approved for each station is indicated in the table below.

Table 124: Availability for FY 2010-11 approved by Commission

(%)

Stations	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
C Station	91.03	90.48	90.48
D Station	90.73	83.09	83.09
E Station	93.71	93.21	93.21
F Station	94.02	93.21	93.21
Vatva Gas	95.63	95.09	95.09

4.1.2 Plant Load Factor (PLF)

Petitioner's submission

TPL-G (APP) has estimated the following PLF for FY 2010-11 for each of its stations.

Table 125: PLF as estimated by TPL-G (APP)

(%)



Stations	Estimated by Commission in the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
C Station	89.89	89.11
D Station	89.42	82.45
E Station	92.53	91.74
F Station	93.01	92.06
Vatva Gas	89.23	89.05

The PLF for FY 2010-11 has been estimated lower as compared to approved PLF especially for D station. This is due to capital works proposed to be carried out for ESP field extension and ash handling system extension which was deferred from FY 2009-10. This will result in shutdown of the plant and therefore PLF will be affected.

Commission's analysis

The Commission has reviewed the submission made by the Petitioner for the FY 2010-11 with significant focus on station D who's PLF has been reduced. The Commission accepts PLF as per Petitioner's estimates for FY 2010-11.

Table 126: PLF estimated by Commission

(%)

Stations	Estimated by Commission in the MYT Order	Estimated by TPL-G (APP)	Estimated by Commission in this Order
C Station	89.89	89.11	89.11
D Station	89.42	82.45	82.45
E Station	92.53	91.74	91.74
F Station	93.01	92.06	92.06
Vatva Gas	89.23	89.05	89.05

4.1.3 Auxiliary Consumption

Petitioner's submission

TPL-G (APP) has submitted the auxiliary consumption for FY 2010-11 at the same level as approved as per the MYT Order. The submission of the Petitioner is outlined in the table below.



Table 127: Auxiliary consumption as estimated by TPL-G (APP)

(%)

Stations	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
C Station	9.41	9.41
D Station	8.73	8.73
E Station	8.73	8.73
F Station	8.73	8.73
Vatva Gas	2.92	2.92

Commission's analysis

The Commission has observed that the Petitioner has submitted the auxiliary consumption at the same level as approved in the MYT Order. The Commission had requested for a study to be conducted by Central Electricity Authority (CEA) with regard to the technical parameters of generating stations of TPL-G (APP). Though the recommendations were published by CEA during October 2009, the Commission did not apply the recommendations in the Order dated 9-12-2009, particularly for the FY 2009-10, on the ground that such a move would leave little time for the Petitioner to adopt strategies to absorb their impact. However, for the ARR process of FY 2010-11, the Commission has considered the CEA estimates for auxiliary consumption.

The auxiliary consumption approved by the Commission is outlined in the table below.

Table 128: Auxiliary consumption approved by Commission

(%)

Stations	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11 (CEA Estimates)
C Station	9.41	9.41	9.50
D Station	8.73	8.73	9.00
E Station	8.73	8.73	9.00
F Station	8.73	8.73	9.00
Vatva Gas	2.92	2.92	3.00



4.1.4 Station Heat Rate

Petitioner's submission

TPL-G (APP), in its petition, has considered the SHRs for all the stations at the levels approved in the MYT Order. **It is to be noted that these SHR values are in terms of net calorific value (NCV).**

Table 129: SHR estimated by TPL-G (APP) on NCV basis

(kCal / kWh)

Stations	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
C Station	3,675	3,675
D Station	2,565	2,565
E Station	2,525	2,525
F Station	2,715	2,715
Vatva Gas	1,950	1,950

Commission's analysis

The Commission has observed that the Petitioner has submitted the SHR on NCV basis for FY 2010-11 at the same level as was approved in the MYT Order. It is a well known fact that the industry practice in India is to define and calculate the operational parameters, including boiler efficiency and turbine cycle heat rate for coal fired stations on GCV basis. Accordingly, the operational parameters are invariably specified on GCV basis by the equipment manufacturers and other regulators. Specifying the heat rate on NCV basis apparently shows the station to be more efficient. In light of the preceding arguments, the Commission is of the opinion that it is essential that TPL specifies station heat rates in terms of GCV. This also makes it easier to compare performance of TPL's generating stations with that of other generating stations in the country. CEA, in its study report, has also stated that the method used by TPL to measure coal calorific value at the railway wagon end gives a wrong value of SHR.

TPL-G (APP), vide its letter dated 2nd March 2010, submitted the SHR values (only for coal based stations) on a GCV basis computed using the calorific value of coal measured as fired. The Commission has accepted these SHR values. For Vatva, the Commission has considered the value estimated by TPL on GCV basis.



Table 130: SHR on GCV basis provided by TPL-G (APP) and recommended by CEA

(kCal / kWh)

Stations	Provided by TPL-G (APP) vide the letter dated 2 nd March, 2010	Recommended by CEA
C Station	3,150	3,240
D Station	2,450	2,515
E Station	2,725	2,790
F Station	2,725	2,790
Vatva Gas	-	2,200

The summary of Commission's analysis is indicated in the table below.

Table 131: Approved SHR for FY 2010-11 on GCV basis

(kCal / kWh)

Stations	Approved as per the MYT Order (NCV)	Estimated by TPL-G (APP) for FY 2010-11 (GCV)	Revised Approved for FY 2010-11 (GCV)
C Station	3,675	3871	3,150
D Station	2,565	2719	2,450
E Station	2,525	2836	2,725
F Station	2,715	2878	2,725
Vatva Gas	1,950	2165	2,165

4.1.5 Secondary Fuel Oil Consumption

Petitioner's submission

TPL-G (APP) has estimated fuel oil consumption for FY 2010-11 at values approved as per the MYT Order (1.45 gm/kWh).

Commission's analysis

The Commission has observed that the Petitioner has considered secondary fuel oil consumption at the same level for all stations. The CEA has calculated secondary fuel oil consumption for each station separately. The Commission for FY 2010-11 has adopted the CEA estimates for secondary oil consumption.



Based on the above approach the Commission approves the specific fuel oil consumption for the FY 2010-11 which is indicated in the table below.

Table 132: Approved secondary fuel oil consumption for FY 2010-11

(gm / kWh)

Secondary Fuel Oil Consumption	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11 (CEA estimates)*
C Station	1.45	1.45	2.09
D Station	1.45	1.45	1.04
E Station	1.45	1.45	1.04
F Station	1.45	1.45	1.04

(*Secondary Fuel oil consumption as estimated by CEA is on ml/kWh basis. The Commission has converted the same into gm/kWh).

4.1.6 Coal Transit & Handling Losses

Petitioner's submission

TPL-G (APP) has estimated a coal transit & handling loss of 1.4% for FY 2010-11 which is in line with the MYT Order approved value.

Commission's analysis

The Commission approves the transit loss for FY 2010-11 at the MYT Order approved value:

Table 133: Approved Transit loss for FY 2010-11

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Coal Transit & Handling loss	1.40%	1.40%	1.40%



4.1.7 Gross & Net Generation

Based on the parameters approved for FY 2010-11, the Commission has computed the gross and net generation from each of the plants which are summarized below.

Table 134: TPL-G (APP) Gross & Net Generation for FY 2010-11

Stations	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
C Station			
Capacity in MW	60	60	60
PLF in %	89.89%	89.11%	89.11%
Gross Generation in MUs	472.46	468.37	468.36
Auxiliary Consumption (MUs)	44.46	44.07	44.49
Net Generation in MUs	428.00	424.30	423.87
D Station			
Capacity in MW	120.00	120.00	120.00
PLF in %	89.42%	82.45%	82.45%
Gross Generation in MUs	939.98	866.72	866.71
Auxiliary Consumption (MUs)	82.06	75.66	78.00
Net Generation in MUs	857.92	791.06	788.71
E Station			
Capacity in MW	110	110	110
PLF in %	92.53%	91.74%	91.74%
Gross Generation in MUs	972.68	884.00	884.01
Auxiliary Consumption (MUs)	84.91	77.17	79.56
Net Generation in MUs	887.77	806.83	804.45
F Station			
Capacity in MW	110	110	110
PLF in %	93.01%	92.06%	92.06%
Gross Generation in MUs	896.24	887.07	887.09
Auxiliary Consumption (MUs)	78.24	77.44	79.84
Net Generation in MUs	818.00	809.63	807.25
Vatva Gas CCGP			
Capacity in MW	100	100	100
PLF in %	89.23%	89.05%	89.05%
Gross Generation in MUs	781.65	780	780.08
Auxiliary Consumption (MUs)	22.82	22.78	23.40



Stations	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Net Generation in MUs	758.83	757.27	756.68
Total TPL-G (APP)			
Gross Generation in MUs	4063.01	3886.20	3886.25
Auxiliary Consumption (MUs)	312.49	297.13	305.30
Net Generation in MUs	3750.52	3589.07	3580.95

4.1.8 Variable Cost

In this section the Commission has discussed key parameters bearing effect on cost of generation such as fuel calorific value, fuel price and blending ratio of coal and recomputed the variable cost of generation using approved parameters.

4.1.8.1 Fuel Calorific Value

Petitioner's submission

In its petition, TPL-G (APP) has estimated NCV of all fuels for FY 2010-11 at values approved as per the MYT Order. The Petitioner has also provided the values on GCV basis.

Table 135: NCV estimated by TPL-G (APP) for all fuel types for FY 2010-11

Fuel	Approved as per the MYT Order (NCV)	Estimated by TPL-G (APP) for FY 2010-11	
		(NCV)	(GCV)
Indigenous Coal (kCal/kg)	5236	5236	5515
Imported Coal (kCal/kg)	4929	4929	5288
Secondary fuel oil (kCal/kg)	9766	9766	10345
Gas (kCal/'000 SCM)	8305	8305	9218

Commission's analysis

As per the letter submitted by TPL-G (APP) on 2nd March, 2010, the Petitioner has recomputed the Gross Calorific Value of coal by measuring it on as fired basis as opposed to the earlier method of measuring it on as received basis. Since the



Commission has approved the SHR on GCV basis, the Commission has considered calorific value of all fuel types on gross calorific value basis. For indigenous and imported coal, the Commission has considered the values provided by TPL-G (APP) on 2nd March, 2010, whereas for secondary fuel oil and gas, the Commission has considered the values submitted in the petition.

Table 136: Approved calorific value for FY 2010-11

Fuel	Approved as per MYT Order (NCV)	Estimated by TPL-G (APP) for FY 2010-11 (NCV)	Revised Approved for FY 2010-11 (GCV)
Indigenous Coal (kCal/kg)	5236	5236	4900
Imported Coal (kCal/kg)	4929	4929	5225
Secondary fuel oil (kCal/kg)	9766	9766	10345
Gas (kCal/’000 SCM)	8305	8305	9218

4.1.8.2 Blending ratio for coal

Petitioner’s submission

In the MYT Order, the Commission had approved a blending ratio for indigenous and imported coal at 72:28 for C, D, E and F stations. In the petition, TPL-G (APP) submitted that it normally uses indigenous coal for C station and blended coal for stations D, E and F at an estimated average blending ratio of 64:36. This results in an average blending ratio of 71:29, combined for all the stations, which is close to the blending ratio of 72:28 approved by the Commission. TPL-G (APP) has further submitted that this ratio varies depending upon the availability of indigenous coal and calorific value of indigenous and imported coal.

Commission’s analysis

As blending ratio is an uncontrollable parameter whose actual impact is passed on to the consumers regularly through the FPPPA mechanism, the Commission has decided to maintain the blending ratio at the MYT Order approved level.



Table 137: Approved blending ratio FY 2010-11

Particular	Approved as per MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Blending Ratio	72:28	64:36	72:28

4.1.8.3 Fuel price

Petitioner's submission

In its petition, TPL-G (APP) has maintained price of all fuels for FY 2010-11 at values approved as per the MYT Order.

Table 138: Fuel price estimated by TPL-G (APP) for all fuel types for FY 2010-11

Fuel	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
Indigenous Coal (Rs./Tonne)	2757.00	2757.00
Imported Coal (Rs./Tonne)	3035.00	3035.00
Gas (Rs. Per '000 SCM)	8095.00	8095.00
Secondary fuel oil (Rs./Tonne)	18053.00	18053.00

Commission's analysis

The Commission considers fuel price as an uncontrollable item and its actual impact is passed on regularly to the consumers through the FPPPA mechanism. The Commission for the year has decided to approve the fuel prices at the MYT approved level. The actual price will be considered during the true-up process of FY 2010-11 when the actual data for the year will be available.

Table 139: Fuel price for FY 2010-11 approved by Commission

Fuel	Approved as per MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Indigenous Coal (Rs./Tonne)	2757.00	2757.00	2757.00



Fuel	Approved as per MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Imported Coal (Rs./Tonne)	3035.00	3035.00	3035.00
Gas (Rs. per '000 SCM)	8095.00	8095.00	8095.00
Secondary fuel oil (Rs./Tonne)	18053.00	18053.00	18053.00

4.1.8.4 Computation of variable cost

Based on the revised approved values, the Commission has estimated the cost and the required quantity for each fuel type.

Table 140: Computation of variable cost for TPL-G (APP) for FY 2010-11

Fuel Type	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Indigenous Coal			
Requirement (Mn. Tonnes)	1.27	1.19	1.23
Rate (Rs./Tonne)	2757	2757	2757
Cost (Rs. crores)	351.40	328.53	337.90
Imported Coal			
Requirement (Mn. Tonnes)	0.49	0.48	0.47
Rate (Rs./Tonne)	3035	3035	3035
Cost (Rs. crores)	148.39	147.09	142.63
Gas			
Requirement (Mn. SCM)	183.53	183.15	183.21
Rate (Rs./'000 SCM)	8095	8095	8095
Cost (Rs. crores)	148.57	148.26	148.31
Secondary fuel oil			
Requirement (Tonnes)	4758.00	4504.00	3728.83
Rate (Rs./Tonne)	18053	18053	18053
Cost (Rs. crores)	8.59	8.13	6.73



Fuel Type	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Total Coal & Secondary Fuel (Rs. crores)	508.38	483.76	487.26
Total Gas (Rs. crores)	148.57	148.26	148.31
Total Fuel Cost of TPL-G (APP) (Rs. crores)	656.94	632.02	635.57

4.1.9 Fixed Costs

4.1.9.1 Operations & Maintenance expenses

TPL-G (APP), in its petition for FY 2010-11, has estimated the following O&M expenses.

Table 141: O&M expenses estimated by TPL-G (APP) for FY 2010-11

(Rs. crores)

O&M expenses	Approved as per the MYT Order	Revised Estimated for FY 2010-11
Employee Expenses	55.85	66.37
R&M Expenses	53.12	67.21
A&G Expenses	24.90	19.88
O&M Expenses	133.87	153.45

Employee expense

Petitioner's submission

TPL-G (APP) has estimated employee expenses higher than the value approved as per the MYT Order. TPL-G (APP) submitted that the increase in employee expenses is on account of provision made for wage revision, which is under negotiation with the Employees Union.

Commission's analysis



The Commission is of the opinion that employee expense is a controllable expense. Based on this approach, for the FY 2010-11, the Commission approves the employee expense at the same level as was approved under the MYT Order. Any variation in actual expense will be considered during the annual performance review for FY 2010-11. The summary of employee expense for FY 2010-11 is provided in the following table.

Table 142: Approved Employee expenses for FY 2010-11

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Employee Expenses	55.85	66.37	55.85

4.1.9.2 Repairs & Maintenance (R&M) expense

Petitioner's submission

TPL-G (APP) has stated that R&M expenses include expenses on repairs and maintenance of plant and machinery, building, other civil works, vehicles, furniture & fixtures, office equipment, etc. TPL-G (APP) has to carry out regular repairs and maintenance of its generating plants to ensure maximum generation through optimum utilization of generation assets. The Petitioner's estimate for R&M expense has gone up. The increase in R&M is due to one time expense for major overhauling of C-Station and demolition of old civil structure. The major overhaul of C-Station was deferred from FY 2009-10 to FY 2010-11. Further, demolition of civil structure is being proposed because of safety reasons.

Commission's analysis

The Commission is of the opinion that R&M expense is a controllable expense. Based on this approach, for the FY 2010-11, the Commission approves the R&M expense at the same level as was approved in the MYT Order. Any variation in actual expense will be considered during the annual performance review for FY 2010-11. The summary of R&M expense for FY 2010-11 is provided in the following table.

Table 143: Approved R&M expenses for FY 2010-11

(Rs. crores)



Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
R&M Expenses	53.12	67.21	53.12

4.1.9.3 Administration & General (A&G) expense

Petitioner's submission

TPL-G (APP) has stated that A&G expenses include rents, rates and taxes, legal expenses, professional fees, insurance, conveyance expenses, training expenses, printing and stationery etc. The Petitioner has revised downwards the estimates for A&G expenses as compared to the values approved as per the MYT Order.

Commission's analysis

The Commission is of the opinion that A&G expense is a controllable expense. Based on this approach, for the FY 2010-11, the Commission approves the A&G expense at the same level as was approved as per the MYT Order. Any variation in actual expense will be considered during the annual performance review for FY 2010-11. The summary of A&G expense for FY 2010-11 is provided in the following table.

Table 144: Approved A&G expenses for FY 2010-11

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
A&G Expenses	24.90	19.88	24.90

4.1.9.4 Capital Expenditure, Capitalization & Sources of Financing

Petitioner's submission

TPL-G (APP), in its petition, stated that the Commission has approved the capital expenditure of Rs. 31.17 Crores for FY 2010-11 which has been revised to Rs.80.59 Crores in the current petition. The increase in capital expenditure in FY 2010-11 was mainly on account of renovation and upgradation and deferment of capital expenditure from FY 2009-10.



The capital expenditure like the replacement of NDCT cooling towers to IDCT cooling tower for C-Station, upgradation of E Station, ESP field extension and overhauling of existing ESP for D-Station, control replacement for D-Station, Ash handling system extension for D-Station, renovation and refurbishment of civil structures/buildings for C-station, Installation of new conveyor, pollution control scheme, etc for FY 2009-10 have been deferred to FY 2010-11.

The reasons for the variation in the capital expenditure approved as per the MYT Order and as per current petition are mentioned below:

- TPL-G (APP) has proposed to carry out the HP Heater replacement for “F “Station mainly in FY 2010-11. Accordingly the capital expenditure to be incurred in FY 2010-11 is Rs. 2.50 Crores.
- The expenditure in relation to renovation of down stream conveyor from existing crusher house to D,E & F station bunkers has been deferred to next control period, which was initially planned in FY 2010-11, as a cost control measure.
- The routine capital expenditure for FY 2010-11 Sabarmati has increased to Rs.22.57 Crores when compared to the approved figures of Rs.12.54 Crores mainly on account of certain new projects envisaged such as implementation of online performance monitoring project for all the stations, DM plant renovation, Retrofitting of smart positioners for BFP.
- TPL-G (APP) has planned capital expenditure on construction of new electrical machines motor shed for D and E-Station mainly on account of storing the heavy electrical machinery and also to undertake Repair and maintain the HP/LP motors with lifting arrangement.
- TPL-G (APP) has proposed to incur an additional capital expenditure of Rs.2.11 Crores towards carrying out minor modifications in existing office facilities and towards completion of the various security system enhancement projects as initiated in FY 2009-10.

Table 145: Estimated capital expenditure for FY 2010-11

(Rs. crores)



Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
C station cooling tower – IDCT	-	3
E Station upgradation	-	16.46
ESP field extension, overhauling of existing ESP, control replacement, Ash handling system extension	-	17
HP Heater replacement for “F “ Station	-	2.5
Renovation and refurbishment of civil structures/buildings	-	5
Installation of new conveyor from conveyor N4B discharge end	-	2
Pollution control scheme	-	6
Renovation of down stream conveyor from existing crusher house to D,E & F station bunkers	7.5	-
Construction of new cooling towers	8	2.5
Normal Capital expenditure – Sabarmati	12.54	22.57
Normal Capital Expenditure – Vatva	3.13	0.85
Construction of New Electrical Machines Motor Shed for " D/E "Station	-	0.6
Miscellaneous Item- Admin	-	2.11
Total	31.17	80.59

TPL-G (APP) has further considered a normative debt equity ratio of 70:30 for funding the capital expenditure. Break up of sources of fund between debt and equity is presented in the table below.

Table 146: Capitalization and sources of financing estimated by Petitioner

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
Capital expenditure	31.17	80.59
Capitalization	33.17	70.63
Debt %	70	70
Debt	29.36	49.44
Equity	12.58	21.19



Commission's analysis

The Commission has reviewed the reasons for a rise in the capital expenditure which has been primarily due to deferred projects of FY 2009-10 which are being implemented in FY 2010-11. The Commission considers capital expenditure as an uncontrollable expense and therefore due to uncontrollable variations like economic slowdown, it approves Capital expenditure at values estimated by the Petitioner in the current petition. Hence, the Commission approves the capital expenditure as proposed by the Petitioner. The Commission further mentions that any deviation in the actual expenditure and capitalization will be reviewed during APR of FY 2010-11.

The summary of the Commission's analysis is provided in the following table.

Table 147: Approved capitalization and sources of financing

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Capital expenditure	31.17	80.59	80.59
Capitalization	33.17	70.63	70.63
Debt %	70	70	70
Debt	29.36	49.44	49.44
Equity	12.58	21.19	21.19

4.1.9.5 Interest expenses

Petitioner's submission

In its petition, TPL-G (APP) has estimated the interest expenses on the existing loans on the basis of opening balances of the loans for FY 2010-11. Thus TPL-G (APP) has worked out the interest on existing loans as follows.

Table 148: Interest Expense on existing loans for FY 2010-11 estimated by Petitioner

(Rs. crores)

Existing loan sub-heads	Estimated by TPL-G (APP) for FY 2010-11
IDFC Term Loan II	
Opening balance	10.71



Existing loan sub-heads	Estimated by TPL-G (APP) for FY 2010-11
Repayments	7.14
Closing balance	3.57
Interest rate	8.17%
Interest on loan	0.49
LIC Loan	
Opening balance	41.87
Repayments	4.79
Closing balance	37.09
Interest rate	11.00%
Interest on loan	4.37
BOB Loan	
Opening balance	28.62
Repayments	2.94
Closing balance	25.69
Interest rate	10.75%
Interest on loan	2.91
Total	7.77

Further, TPL-G (APP) has estimated interest expenses on new loans based on normative basis considering 70% of capitalization as debt requirement and an interest rate of 11%.

Table 149: Interest Expense on new loans for FY 2010-11 estimated by the Petitioner

(Rs. crores)

New loan sub-heads	Estimated by TPL-G (APP) for FY 2010-11
Capital expenditure during the year	80.59
Capitalization during the year	70.63
Normative Debt @ 70%	49.44
Opening balance	0.00
Additions	49.44
Repayments	0.00



New loan sub-heads	Estimated by TPL-G (APP) for FY 2010-11
Closing balance	49.44
Interest expenses @ 11%	2.72

Commission's analysis

In order to assess the interest on existing loans, the Commission studied the data formats submitted by the Petitioner detailing the schedule of loans obtained. It has reviewed the figures of opening and closing balances and the interest rates used and found them to be appropriate. Further, the Commission has considered the loan from Bank of Baroda (BoB) as a part of existing loan.

For new loans, the Commission has studied the data formats submitted by the Petitioner. It has observed that the interest rate of 11% used by the Petitioner is in line with the market rates. However, the Petitioner has procured a loan amount (net of repayment) of Rs. 25.68 crores from BoB in FY 2010-11 which the Commission has reduced from the normative debt. Thus the Commission has computed interest on new loans as follows:

Table 150: Interest Expense on new loans for FY 2010-11 computed by Commission

(Rs. crores)

New loan sub-heads	Estimated by TPL-G (APP) for FY 2010-11	Computed by Commission
Normative Debt @ 70%	49.44	49.44
Opening balance	0.00	0.00
Additions	49.44	23.76
Closing balance	49.44	23.76
Interest expenses @ 11%	2.72	1.31

The summary of interest expense for FY 2010-11 is provided in the following table.

Table 151: Approved Interest expense for FY 2010-11

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11



Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Interest expense	22.35	10.49	9.08

4.1.9.6 Depreciation

Petitioner's submission

In its petition, TPL-G (APP) has estimated depreciation using CERC rates, based on the revised GFA and capitalization for FY 2010-11. The depreciation has been calculated using straight line method.

Table 152: Depreciation for FY 2010-11 estimated by TPL-G (APP)

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by the Petitioner
Depreciation	36.99	29.49

Commission's analysis

The Commission computed the opening and closing GFA for FY 2010-11 based on the closing GFA of FY 2009-10 and capitalization for FY 2010-11. The Commission has reviewed depreciation computed by TPL-G (APP) on the different asset classes like P&M, buildings, vehicles, etc. and found the computation to be appropriate.

Table 153: Approved Depreciation for FY 2010-11

(Rs. crores)

Particulars	Approved as per MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Estimates considered for APR
Depreciation	36.99	29.49	29.49

4.1.9.7 Interest on Working Capital

Petitioner's submission



In its petition, TPL-G (APP) has revised the estimate for interest on working capital and recomputed the same based on normative parameters.

Table 154: Interest on Working Capital estimated by Petitioner

(Rs. crores)

Working capital components	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11
Coal & Secondary Fuel for 2 months	86.08	80.63
Cost of gas for 1 month	12.38	12.36
O&M Expenses for 1 month	9.10	12.79
1% of GFA for maintenance spares	11.16	8.49
Receivables equivalent to 2 months	157.74	153.60
Normative Working Capital	276.46	267.87
Interest Rate	10.25%	10.25%
Interest on Working Capital	28.34	27.46

Commission's analysis

The Commission has recomputed the interest on working capital on a normative basis as per GERC Terms and Conditions of Tariff, using the revised approved component values for FY 2010-11.

Table 155: Interest on Working Capital as computed by Commission for FY 2010-11 on a normative basis

(Rs. crores)

Particulars	Approved as per the MYT Order	Computed by Commission on normative basis using revised approved values
Coal & Secondary Fuel for 2 months	86.08	81.21
Cost of gas for 1 month	12.38	12.36
O&M Expenses for 1 month	11.16	11.16
1% of GFA for maintenance spares	9.10	7.78
Receivables equivalent to 2 months	157.74	149.24
Normative Working Capital	276.46	261.75
Interest Rate	10.25%	10.25%



Particulars	Approved as per the MYT Order	Computed by Commission on normative basis using revised approved values
Interest on Working Capital	28.34	26.83

The Commission accordingly approves the interest on working capital based on the above computation. Any variation in the actual interest on working capital will be considered during the annual performance review for FY 2010-11. The summary of interest on working capital for FY 2010-11 is provided in the following table:

Table 156: Approved Interest on working capital for FY 2010-11

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Interest on working capital	28.34	27.46	26.83

4.1.9.8 Return on Equity

Petitioner's submission

TPL-G (APP) has revised the estimate on account of revision in closing equity for FY 2009-10 and revised capitalization for FY 2010-11. The equity addition for the year is considered at a normative proportion of 30% of the capital addition during the year. The return on equity computed as 14% on the average balance of equity for TPL-G (APP) is tabulated below:

Table 157: Return on Equity estimated by Petitioner

(Rs. crores)

Return on Equity computation	Approved as per the MYT Order	Estimated by the Petitioner
Opening equity	365.13	320.49
Equity addition during the year	9.95	21.19
Equity at end of the year	375.08	341.68
Return on Equity @ 14%	51.81	46.35



Commission's analysis

The Commission has noted that the opening equity considered by the Petitioner is consistent with the closing equity approved for FY 2009-10. The net addition in equity has also been considered on a normative basis. Hence the Commission accepts TPL-G (APP)'s estimation.

Since capital expenditure has been considered as uncontrollable the Commission has treated return on equity as uncontrollable. Any variation in return on equity will be considered during the annual performance review for FY 2010-11.

The summary of Return on Equity for FY 2010-11 is provided in the table below.

Table 158: Approved Return on equity for FY 2010-11

(Rs.
crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Return on equity	51.81	46.35	46.35

4.1.9.9 Income Tax

Petitioner's submission

TPL-G (APP) in its petition has revised the tax computation by considering RoE as the post tax return (PAT) and grossing it up to estimate the PBT. The amount of Income tax for FY 2010-11 as estimated by the Petitioner is indicated in the table below:

Table 159: Income Tax for FY 2010-11 estimated by Petitioner

(Rs. crores)

Income Tax computation	Estimated by TPL-G (APP) for FY 2010-11
ARR including non-tariff income	923.13
Total expense	852.91
PBT	70.22
Income tax	23.87
PAT	46.35



Commission's analysis

The Commission has computed the income tax expense on a normative basis by applying the tax rate of 33.99% on the Return on Equity. This is in line with the GERC Terms & Conditions of Tariff Regulations, 2005 which considers Return on Equity as the permissible return to compute the income tax. The actual income tax paid will be considered during the process of true-up when the audited accounts will be available.

The final summary for income tax is shown below:

Table 160: Income tax approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Income tax	17.61	23.87	15.76

4.1.9.10 Non-Tariff income

Petitioner's submission

In the MYT Order the Commission had maintained the non-tariff income at Rs. 1.50 crores throughout the control period. TPL-G (APP), in its petition, has also maintained the non-tariff income for FY 2010-11 at the value approved as per order dated Rs. 1.50 crores.

Commission's analysis

The Commission has approved the non-tariff income at the same level as it had approved in the MYT Order.

Table 161: Approved Non-Tariff income for FY 2010-11

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Non-Tariff income	1.50	1.50	1.50



4.1.10 Summary of ARR of TPL-G (APP) for FY 2010-11

Table 162: Summary of ARR of TPL-G (APP) for FY 2010-11

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-G (APP) for FY 2010-11	Revised Approved for FY 2010-11
Total Variable Costs	656.94	632.02	635.57
Fixed Costs			
Employee Expenses	55.85	66.37	55.85
R&M Expenses	53.12	67.21	53.12
A&G Expenses	24.90	19.88	24.90
Depreciation	36.99	29.49	29.49
Interest on loans	22.35	10.49	9.08
Interest on Working Capital	28.34	27.46	26.83
Return on Equity	51.81	46.35	46.35
Income Tax	17.61	23.87	15.76
Total Fixed Costs	290.97	291.11	261.37
Gross ARR	947.91	923.13	896.95
Non-Tariff income	1.50	1.50	1.50
Net ARR	946.41	921.63	895.45



4.2 Ahmedabad Distribution

4.2.1 Sales

Petitioner's submission

TPL-Ahmedabad has forecasted sales for FY 2010-11 based on the actual sales for the first half of FY 2009-10. While revising the estimates, TPL-Ahmedabad has factored in corrections due to the recent recovery in the economy, based on partial end use survey. The category-wise sales as estimated are shown below.

Table 163: Sales estimated by TPL-Ahmedabad for FY 2010-11

(MUs)

Categories	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
Residential General Purpose	1676.00	1714.00
Commercial / Industrial General Purpose	941.00	941.39
Low Tension Power	300.00	284.22
Low Tension Maximum Demand	976.00	898.91
High Tension Maximum Demand	1599.00	1239.87
HT Pumping	101.00	99.40
Others	138.00	65.89
DoE	0.00	0.00
Total	5731.00	5243.68

TPL-Ahmedabad has, on an overall basis, projected reduction in sales due to economic slowdown. The reasons for difference in sales across various categories as explained by TPL-Ahmedabad are provided below:

Residential General Purpose

TPL-Ahmedabad has revised upwards the sales to this category. The YOY growth for FY 2010-11 over FY 2009-10 is estimated at 8.72% as against the 5-year CAGR of 8.22%. The sales estimated for FY 2010-11 are higher than that approved by the



Commission in MYT Order mainly on account of the development in the real estate sector across the city.

Commercial General Purpose & Industrial General Purpose

TPL-Ahmedabad submitted that this category primarily include mid size commercial complexes, shops and offices and the impact of recession would not be significant in this category. The YOY growth for FY 2010-11 over FY 2009-10 is estimated at 11.93% as against the last year growth of 10.46%. It is expected that this category will continue to grow at a higher rate as the economic conditions have improved.

Low Tension Power

The sales estimates have been revised downward as against the approved sales. The YOY growth for FY 2010-11 over FY 2009-10 is estimated at 5.97% as against the last year growth of 4.33%.

Low Tension Maximum Demand

There is downward revision in the sales estimation by the Petitioner. This is mainly on account that this category was largely affected due to the economic recession thus a lower growth has been assumed to give effect to the lower sales under this category in FY 2010-11.

High Tension Maximum Demand

The Petitioner has revised the sales estimate downwards. The category has been worst hit by the economic slowdown and considerable time is required for this category to pick up. The YOY growth for FY 2010-11 over FY 2009-10 is estimated at growth of -3.67% as against the last year's growth of -5.75%.

HT Pumping

The YOY growth for FY 2010-11 over FY 2009-10 is estimated at 1.49% as against the 5-year CAGR of -4.79%. This is mainly done to account for the increase in sales in FY 2009-10 due to the deficient monsoon.

Others

The YOY growth for FY 2010-11 over FY 2009-10 is estimated at 3.10% as against the de-growth under this category for the last year.

Commission's analysis



The Commission analyzed the submissions made by TPL-Ahmedabad and the reason of economic slowdown for the reduced sales. As per the statistics issued by RBI, the growth rate of Indian economy dipped to 6.7% in FY 2008-09 from the high of 8.7% in FY 2007-08. However, the growth forecast for FY 2009-10 and FY 2010-11 is 7.5% each thus indicating a recovery phase from the economic recession.

For estimating the energy sales, the Commission has considered the growth rate of sales approved in the APR of FY 2009-10 over actual sales of FY 2008-09 for estimating sales of FY 2010-11. The table below gives the sales approved in the APR of FY 2009-10 for FY 2009-10 and the growth rates considered.

Table 164: Growth rates for FY 2010-11 and sales approved for FY 2010-11

(MUs)

Categories	FY 2009-10	FY 2010-11	
	Approved in APR of FY 2009-10	YoY growth rate (%)	Approved by Commission
Residential	1576.55	10.60%	1744.19
Commercial	864.6	13.60%	981.79
LTP-I	59.52	3.90%	61.83
LTP-II	208.69	4.50%	217.99
LTMD-I	138.29	30.90%	181.07
LTMD-II	710.9	6.50%	756.78
HTMD	1433.91	5.00%	1505.61
HT Pumping	97.94	11.80%	109.45
Agri	9.1	12.30%	10.22
GLP	8.31	4.80%	8.71
Temp	1.22	12.00%	1.37
STL	45.28	10.60%	50.08
DOE	4.32		0.00
Total	5158.64		5629.08

The summary of sales approved for FY 2010-11 is shown below:



Table 165: TPL-Ahmedabad category wise sales approved by Commission for FY 2010-11

(MUs)

Categories	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Residential	1676	1714	1744.19
Commercial	941	941.39	981.79
LTP-I	65	63.07	61.83
LTP-II	235	221.15	217.99
LTMD-I	115	148.29	181.07
LTMD-II	861	750.62	756.78
HTMD	1599	1239.87	1505.61
HT Pumping	101	99.4	109.45
Agri	9	9.38	10.22
GLP	13	9.26	8.71
Temp	1	1.28	1.37
STL	115	45.97	50.08
Total	5731	5243.68	5629.08

4.2.1.1 Number of installations

Petitioner's submission

In order to project the number of installations in the licensee area, TPL-Ahmedabad has contacted the different categories of consumers such as builders, developers and industrialists, to track their future plan. For all the categories the projections of number of installations is based on the growth trend in the first half of FY 2009-10 and feed back from the end use survey. It has also considered the factors like the current market scenario, delay in upcoming projects and the industrial recession in the supply area. The approved and revised estimate for the number of installations for FY 2010-11 is tabulated below.

Table 166: No. of installations estimated by the Petitioner

Category	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
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Category	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
Residential General Purpose	1173961	1224952
Commercial General Purpose	332963	330476
Low Tension Power	50538	58050
Low Tension Maximum Demand	12035	14174
High Tension Maximum Demand	812	799
HT-Local Authority	137	158
Others	3823	3303
Total	1574269	1631912

Commission's analysis

The Commission has observed that TPL-Ahmedabad has utilized growth rates between 2% and 16% to project number of installations for various categories, with an overall growth rate of 2.29%. Since this is consistent with the predictions of economic recovery for FY 2010-11, the Commission has accepted TPL-Ahmedabad's growth rates and applied them on approved sales for FY 2009-10 in the APR.

Table 167: No. of installations approved by Commission

Category	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Residential General Purpose	1173961	1224952	1224952
Commercial General Purpose	332963	330476	330476
Low Tension Power	50538	58050	58050
Low Tension Maximum Demand	12035	14174	14174
High Tension Maximum Demand	812	799	799
HT-Local Authority	137	158	158
Others	3823	3303	3303
Total	1574269	1631912	1631912

4.2.2 Revenue from sale of power

Petitioner's submission

TPL-Ahmedabad has estimated revenues of Rs. 2004.51 crores by applying existing tariff on estimated sales figures.



Commission's analysis

The Commission has recomputed the revenue based on revised estimates for sales and number of installations as shown in the table below.

Table 168: Sales revenues approved by Commission for FY 2010-11*(Rs. crores)*

Category	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11 as per existing tariff
RGP	532.97	535.86	546.00
CGP & IGP	434.74	431.57	450.08
LTP-1	23.34	22.72	22.30
LTP-2	93.06	86.97	85.88
LTMD-1	43.93	53.05	64.42
LTMD-2	353.87	310.41	312.66
HTMD	630.01	503.40	597.92
HT Pumping	37.88	36.48	39.64
LTP (AG)	2.86	2.98	3.25
GLP	4.97	3.41	3.19
TS	0.53	0.94	0.98
Streetlights	42.78	16.71	18.02
DOE	0.00	0.00	0.00
Total	2200.92	2004.51	2144.34

4.2.3 Distribution loss**Petitioner's submission**

TPL-Ahmedabad has estimated the distribution loss at 10.00% which is same as that approved as per the MYT Order.

Commission's analysis

The distribution loss for FY 2010-11 was approved at 10.00% in the MYT Order. The Commission is not approving the loss level again for FY 2010-11, but is recalculating it solely for the purpose of assessment of realistic energy requirement. The Commission has estimated the distribution loss for FY 2010-11 by assessing the YoY reduction trajectory approved in MYT Order between the FY 2009-10 and FY 2010-11 and applied the same on loss value considered in the APR of FY 2009-10.

Table 169: Distribution loss for TPL-Ahmedabad approved by Commission for FY 2010-11

Particulars	Approved as per the MYT Order		Considered for energy requirement	
	FY 2009-10	FY 2010-11	FY 2009-10	FY 2010-11
Distribution loss (%)	10.25	10.00	10.19	9.94
Annual reduction (%)		0.25		0.25

The summary for distribution loss is shown below.

Table 170: Distribution loss estimated by Commission

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Distribution loss considered for Energy requirement for FY 2010-11
Distribution loss (%)	10.00	10.00	9.94

However, for the purpose of computation of gain/loss during true-up, the Commission shall consider the distribution loss approved as per the MYT Order.

4.2.4 Energy Requirement

Petitioner's submission

The Commission, in the MYT Order, had approved the energy requirement considering a distribution loss of 10% and a transmission loss of 47 MUs. The Petitioner in the ARR petition of FY 2010-11 has revised the energy requirement estimates. The variation in the energy requirement vis-à-vis requirement approved as per the MYT Order is mainly on account of change in sales and variation in transmission loss.



Table 171: Energy requirement estimated by TPL-Ahmedabad

(MUs)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
Energy Sales	5731.00	5243.68
Distribution loss (%)	10.00%	10.00%
Distribution loss	637.00	582.63
Energy input at distribution level	6368.00	5826.31
Transmission loss	47.00	92.43
Energy requirement	6415.00	5918.74

Commission's analysis

For the calculation of energy requirement, the Commission has considered the revised sales and distribution loss estimated by the Commission. For transmission loss, the Commission has maintained the same transmission loss as percentage of total energy requirement as was estimated by TPL-Ahmedabad.

Based on the above analysis the Commission has calculated the energy requirement as shown below and considered the same for ARR of FY 2010-11.

Table 172: Energy requirement for TPL-Ahmedabad approved by the Commission

(MUs)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Energy Sales	5731.00	5243.68	5629.08
Distribution loss (%)	10.00%	10.00%	9.94%
Distribution loss	637.00	582.63	621.39
Energy input at distribution level	6368.00	5826.31	6250.47
Transmission loss	47.00	92.43	99.16
Energy requirement	6415.00	5918.74	6349.63

4.2.5 Energy Availability**Petitioner's submission**

The Commission, in its MYT Order, had approved TPL-G (APP), TPL-G (SUGEN), GUVNL and Wind Energy as power sources for TPL-Ahmedabad. In the current petition the Petitioner has estimated the Energy Availability for TPL-D as a whole and not for each of the distribution areas separately.

The Petitioner submitted that there has been reduction in the energy requirement leading to the reduction of utilization of the base load generation and hence in the reduced offtake from TPL-G (SUGEN). The loads of the supply areas have been reduced marginally. The peak load is envisaged to be met through other sources. This is mainly because GUVNL has unilaterally stopped the supply of power to TPL-D from which the peak requirement was envisaged to be met. Till the time the bidding is not concluded, the extra requirement for both the supply area will be met through procurement from merchant capacity of TPL-G (SUGEN) or other sources. With regards to wind power, the Petitioner has stated that as per GERC (Power Procurement from Renewable Sources) Regulations, 2005 all the distribution licensees in the State of Gujarat need to procure power from renewable sources. The regulation specified minimum percentage of procurement of power till FY 2008-09. In the absence of guideline for RPPO for FY 2010-11 the TPL-D has assumed 2% RPPO.

Table 173: Energy Availability estimated by TPL-D

(MUs)

Energy sources	Energy Availability for TPL-D for FY 2010-11
TPL-G (APP)	3589.07
TPL-G (SUGEN)	5270.19
Other sources	259.75
Wind energy	117.35
Total	9236.35

Commission's analysis

Since the Petitioner did not provide the source-wise segregated Energy Availability, the Commission estimated the Energy Availability from various sources by making appropriate assumptions.

- The Commission considered the entire net generation from TPL-G (APP) for Ahmedabad as approved in this Order.
- The source "Others" as estimated by TPL-D has been completely allocated to Ahmedabad.



- The Wind energy as estimated by TPL-D has been allocated between Ahmedabad and Surat in the ratio of energy requirement of each license area.
- The balance energy requirement has been estimated to be met by SUGEN.

Table 174: Energy Availability approved for FY 2010-11 for TPL-Ahmedabad

(MUs)

Energy source	Approved as per MYT Order	Estimated by TPL-Ahmedabad	Revised Approved for FY 2010-11
TPL-G (APP)	3751	-	3580.95
TPL-G (SUGEN)	2206	-	2432.01
GUVNL/other sources	0	-	259.75
Wind energy	458	-	76.91
Total	6415	-	6349.63

4.2.6 Power purchase cost

Petitioner's submission

The Petitioner has estimated Power Purchase cost of TPL-D as a whole and not separately for TPL-Ahmedabad. The Power purchase rate from each source has also been mentioned for the whole of TPL-Distribution and not individually for the supply area.

Table 175: Power purchase cost estimated by TPL-D for FY 2010-11

Sources	Estimated by TPL-D for FY 2010-11
TPL-G (APP)	
Quantity in MUs	3589.07
Rate in Rs./kWh	2.57
Cost in Rs. crores	921.63
TPL-G (SUGEN)	
Quantity in MUs	5270.19
Rate in Rs./kWh	2.93
Cost in Rs. crores	1544.16
Other Sources	
Quantity in MUs	259.75



Sources	Estimated by TPL-D for FY 2010-11
Rate in Rs./kWh	3.10
Cost in Rs. crores	80.52
Wind energy	
Quantity in MUs	117.35
Rate in Rs./kWh	3.51
Cost in Rs. crores	41.19
Total	
Quantity in MUs	9236.35
Rate in Rs./kWh	2.80
Cost in Rs. crores	2587.51

Commission's analysis

Though Petitioner has provided the total power purchase cost separately for Ahmedabad and Surat areas, but it has not provided with the source-wise power purchase cost. The Commission has estimated the power purchase cost by considering the per unit rates as were approved in the MYT Order except for TPL-G (APP) wherein the Commission has considered the per unit cost as computed in this Order.

Table 176: Power purchase cost for TPL-Ahmedabad approved by Commission

Sources	Approved as per MYT Order	Estimated by TPL-Ahmedabad	Revised Approved for FY 2010-11
TPL-G (APP)			
Quantity in MUs	3751.00	-	3580.95
Rate in Rs./kWh	2.52	-	2.50
Cost in Rs. crores	946.41	-	895.45
TPL-G (SUGEN)			
Quantity in MUs	2206.00	-	2432.01
Rate in Rs./kWh	2.93	-	2.93
Cost in Rs. crores	646.36	-	712.58
GUVNL/Other sources			
Quantity in MUs	0.00	-	259.75
Rate in Rs./kWh	0.00	-	3.10
Cost in Rs. crores	0.00	-	80.52



Sources	Approved as per MYT Order	Estimated by TPL-Ahmedabad	Revised Approved for FY 2010-11
Wind energy			
Quantity in MUs	458.00	-	76.91
Rate in Rs./kWh	3.51	-	3.51
Cost in Rs. crores	160.76	-	27.00
Total			
Quantity in MUs	6415.00	-	6349.63
Rate in Rs./kWh	2.73	-	2.70
Cost in Rs. crores	1753.53	1658.10	1715.55

4.2.7 Fixed Costs

4.2.7.1 Operations & Maintenance expenses

TPL-Ahmedabad, in its petition for FY 2010-11, has estimated the following O&M expenses.

Table 177: O&M expenses estimated by TPL-Ahmedabad

(Rs. crores)

O&M expenses	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
Employee Expenses	70.37	82.07
R&M Expenses	82.25	98.45
A&G Expenses	35.67	36.81
O&M Expenses	188.29	217.33

Employee expense

Petitioner's submission

TPL-Ahmedabad has estimated employee expenses higher than that approved as per the MYT Order. The Petitioner submitted that the estimated increase has been mainly on account of wage revision of the employees that is currently being negotiated with the Employees Union.



Commission's analysis

The Commission treats employee expense as controllable and approves it as per the MYT Order. Any variation in actual expense will be considered during the annual performance review process for FY 2010-11.

Table 178: Employee expenses approved by Commission*(Rs. crores)*

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Employee Expenses	70.37	82.07	70.37

Repairs & Maintenance (R&M) expense**Petitioner's submission**

TPL-Ahmedabad has revised upwards the Repair and Maintenance expenses. The revision in R&M expenses is due to infrastructure work carried out by local authorities as well as TPL-D's initiatives of carrying out preventive maintenance of transformers in order to ensure better performance.

Commission's analysis

The Commission treats repairs & maintenance expense as controllable and approves it as MYT Order. Any variation in actual expense will be considered during the performance review process for FY 2010-11.

Table 179: R&M expenses approved by Commission*(Rs. crores)*

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
R&M Expenses	82.25	98.45	82.25

Administration & General (A&G) expense**Petitioner's submission**

TPL-Ahmedabad has stated that A&G expenses include rents, rates and taxes, legal expenses, professional fees, insurance, conveyance expenses, training expenses, printing and stationery etc. There is slight upward revision in A&G expenses estimated by TPL-Ahmedabad.

Commission's analysis

The Commission treats A&G expense as controllable and has approved it as per the MYT Order. Any variation in actual expense will be considered during the performance review process for FY 2010-11.

Table 180: A&G expenses approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
A&G Expenses	35.67	36.81	35.67

4.2.7.2 Capital Expenditure, Capitalization & Sources of Financing

Petitioner's submission

TPL-Ahmedabad submitted that it has reassessed the capital expenditure requirement for FY 2010-11 based on the capital expenditure incurred during the first six months of FY 2009-10. The Petitioner has further mentioned that the capital expenditure proposed for FY 2010 -11 are mainly on account of meeting the new load for the HT and LT and network upgradation and modernization. The estimates are shown in the following table.

Table 181: Capital expenditure approved in the MYT Order and estimated by Petitioner

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
EHV	175.5	167.34
HT Network	91.68	73.37
LT Network	51.38	30.28
Metering	24.9	21.26
Special projects	9.02	9.2
Customer Care & IT Initiatives	13.31	13.67



Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
Total	365.79	315.12

The reasons for difference in investments as provided by TPL-Ahmedabad are discussed below:

Investment in EHV Network

- (a) The capital expenditure for 400 kV Gota Import point under the head bulk supply point has been deferred beyond the Control period on account of lower load growth.
- (b) The revised estimate for EHV transmission has been increased mainly on account of the proposed Capital expenditure to be incurred for up-gradation of 66 kV SBI-Gandhinagar line to 132 kV. This project had to be deferred from FY 2009-10 to FY 2010-11 for want of approval from Roads & Building department.
- (c) The revised estimate for EHV sub-station projects has been increased mainly on account of the following:
 - The 400/132 kV EHV substation work at Pirana which is underway is expected to continue in FY 2010-11 and accordingly the expenses have been considered.
 - Inclusion of deferred capital expenditure of FY 2009-10 like 132kV EHV substation at Prahladnagar, Naranpura control room, 33 kV GIS panel at Vinzol and loop in and loop out of 66 kV feeder at Nicol-1
 - However, the capital expenditure for sub-station at IT Park Gandhinagar and 50MVA transformer at Naroda has been deferred.
 - The revised estimate for 33kV sub-station projects has been reduced mainly on account of deferment of capital expenditure for 33 kV sub-station at Civil Hospital, Naroda, Rakhial and GIDC- Vatva.
 - The revised estimate for upgradation projects has been increased mainly on account new capital expenditure towards replacement of EHV control and relay panel at various EHV substations. Also the old RCC gantry structure at various EHV substations is proposed to be replaced under this head.
 - The revised estimate for renovation and replacement projects has been increased mainly on account of the following reasons:
 - (i) Inclusion of replacement of old 11 kV transmission cable for switch houses for higher reliability;
 - (ii) Inclusion of replacement of old capacitor banks for reactive compensation.



- The revised estimate for safety has been increased on account of the deferment of various projects from the previous years.
- Further, an additional expenditure of Rs. 1.00 Crores is proposed for procurement of Emulsifying System for 150 MVA & 50 MVA transformers at Nicol-1 & Nicol-2.
- The capital expenditure proposed for support infrastructure and automation related projects has been slightly revised mainly on account deferment of few expenses from past years.

Investment in HT and LT Network

The capital expenditure under the head investment has been revised to Rs. 73.37 Crores and Rs. 30.27 Crores as against the values approved for HT and LT i.e. Rs.91.68 Crores and Rs. 51.38 Crores for HT Network and LT network respectively. The variation in the investment is mainly due on account of slowdown in the load growth. The revised capital expenditure has been planned based on the trends for applications for new connections and others received in the first half of FY 2009-10.

Investment in Metering: The capital expenditure under the head of investment in metering has been revised to Rs.21.26 Crores as against the values approved in MYT Order. The revised estimates are mostly in line with the approved figures.

Investment in Special Projects: The capital expenditure under the head investment in special projects has been revised to Rs.9.20 Crores as against the values approved as per the MYT Order which was Rs.9.02 Crores. TPL-Ahmedabad stated that the chief reason for that is dropping of its special projects other than the GIS project and test benches for MTL as a cost control measure. The change in the capital expenditure for GIS project is mainly on account of speeding up of the project.

Investment in Customer Care & IT: The capital expenditure under the head investment in Customer Care and IT has been revised to Rs.13.66 Crores as values approved as per the MYT Order wherein it was Rs.13.31 Crores.

TPL-Ahmedabad has further proposed a normative debt equity ratio of 70:30 for funding the capital expenditure as per regulations. Break up of sources of fund between debt and equity is presented in the table below.



Table 182: TPL-Ahmedabad estimates for capitalization and sources of financing for FY 2010-11*(Rs. crores)*

Particulars	Approved as per the MYT Order *	Estimated by TPL-Ahmedabad for FY 2010-11
Capital expenditure	365.79	315.12
Capitalization (net of SLC)		321.44
Debt %		70
Debt		225.01
Equity		96.43

* Capitalization and sources of financing were not approved in the MYT Order

Commission's analysis

The Commission has observed that the TPL-Ahmedabad has estimated a downward revision of the capital expenditure. Since the Commission has treated capital expenditure as uncontrollable, the Commission accepts TPL-Ahmedabad's estimates. Any deviation in the actual expenditure and capitalization will be reviewed during APR of FY 2010-11.

The summary of the Commission's analysis is provided in the following table.

Table 183: Capital expenditure and sources of financing now approved by Commission*(Rs. crores)*

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Capital expenditure	365.79	315.12	315.12
Capitalization (Net of SLC)		321.44	321.44
Debt %		70	70
Debt		225.01	225.01
Equity		96.43	96.43

4.2.7.3 Interest expenses



Petitioner's submission

In its petition for FY 2010-11, TPL-Ahmedabad identified loans for each area and reallocated the interest expenses on the existing loans on the basis of opening balances of the loans for FY 2010-11 for each area. On the basis of this TPL-Ahmedabad has now worked out the interest on existing loans for FY 2010-11 as follows.

Table 184: Interest Expense on existing loans for FY 2010-11 estimated by Petitioner*(Rs. crores)*

Existing loans Ahmedabad	FY 2010-11
APDRP	
Opening balance	34.25
Interest rate	9.00%
Interest expense	3.02
HDFC 2A	
Opening balance	32.69
Interest rate	10.75%
Interest expense	3.09
HDFC 3A	
Opening balance	83.33
Interest rate	11.00%
Interest expense	8.44
SBI	
Opening balance	158.11
Interest rate	11.00%
Interest expense	15.51
LIC	
Opening balance	45.63
Interest rate	11.00%
Interest expense	4.76
BOB	
Opening balance	136.57
Interest rate	10.75%
Interest expense	13.91
Total	
Opening balance	490.58
Interest rate	9%-11%
Interest expense	48.74



Further, TPL-Ahmedabad has estimated interest expenses on new loans based on normative parameters considering 70% of capitalization as debt requirement and an interest rate of 11%.

Table 185: Interest Expense on new loans for FY 2010-11 estimated by Petitioner

(Rs. crores)

New loan sub-heads	Estimated by TPL-Ahmedabad for FY 2010-11
Capital expenditure during the year	315.12
Capitalization during the year	361.44
Less SLC addition	40.00
Normative Debt @ 70%	225.01
Opening balance	0.00
Additions	225.01
Closing balance	225.01
Interest expenses @ 11%	12.38

Commission's analysis

In order to assess the interest on existing loans, the Commission studied the data formats submitted by the Petitioner detailing the schedule of loans obtained. It has reviewed the figures of opening and closing balances and the interest rates used and found them to be appropriate.

The computation of interest expense for existing loans is shown in the following table.

Table 186: Interest Expense on existing loans compared for FY 2009-10 and FY 2010-11

(Rs. crores)

Loan sub-heads	FY 2009-10	FY 2010-11
APDRP A (Rs. 38.70 crores)		
Loan opening	35.22	34.25
Repayment	0.97	1.74
Additions	-	-
Closing	34.25	32.51
Interest rate	9.00%	9.00%
Effective interest rate		
Interest expense	3.13	3.02



Loan sub-heads	FY 2009-10	FY 2010-11
HDFC 2A (Rs. 50 crores)		
Loan opening	40.38	32.69
Repayment	7.69	7.69
Loan closing	32.69	25.00
Interest rate	10.75%	10.75%
Effective interest rate		
Interest expense	3.95	3.09
HDFC 3A (Rs. 100 crores)		
Loan opening	100.00	83.33
Repayment	16.67	16.67
Loan closing	83.33	66.66
Interest rate	11.00%	11.00%
Effective interest rate		
Interest expense	10.28	8.44
SBI (Rs. 350 crores)		
Loan opening	193.30	158.11
Addition	-	-
Repayment	35.19	35.19
Loan closing	45.63	40.41
Interest rate	11.00%	11.00%
Effective interest rate		
Interest expense	19.45	15.51
LIC (Rs. 100 crores)		
Loan opening	50.84	45.63
Addition		-
Repayment	5.21	5.21
Loan closing	45.63	40.41
Interest rate	11.00%	11.00%
Interest expense	5.33	4.76
BOB Loan (Rs. 180 crore)		
Loan opening	-	136.57
Addition	140.08	-
Repayment	3.50	14.01
Loan closing	136.57	122.57
Interest rate	10.75%	10.75%
Interest expense	7.51	13.91
Total Interest expense	49.66	48.74



For new loans, the Commission has studied the data formats submitted by the Petitioner. It has reviewed the opening and closing balances. It has observed that the interest rate of 11% used by the Petitioner is in line with the market rates.

Thus, the Commission accepts the Petitioner's submission in regards to interest on existing and new loans.

Table 187: Interest expense approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Interest expense	130.60	61.12	61.12

4.2.7.4 Depreciation

Petitioner's submission

In its petition, TPL-Ahmedabad has estimated depreciation using CERC rates, based on the revised GFA and capitalization for FY 2010-11. The depreciation has been calculated using straight line method.

Table 188: Depreciation for FY 2010-11 estimated by TPL-Ahmedabad

(Rs. crores)

Particular	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
Depreciation	95.57	81.52

Commission's analysis

The Commission computed the opening and closing GFA for FY 2010-11 based on the closing GFA of FY 2009-10 and capitalization for FY 2010-11. The Commission has reviewed depreciation computed by TPL-Ahmedabad on the different asset classes like P&M, buildings, vehicles, etc. and found the computation to be appropriate.

Table 189: Depreciation approved by Commission

(Rs. crores)



Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Depreciation	95.57	81.52	81.52

4.2.7.5 Interest on Working Capital

Petitioner's submission

In its petition, TPL-Ahmedabad has revised the estimate for interest on working capital and recomputed the same based on normative parameters.

Table 190: Interest on Working Capital estimated by Petitioner

(Rs. crores)

Working capital components	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
O&M Expenses for 1 month	15.69	18.11
1% of GFA for maintenance spares	15.14	27.09
Receivables equivalent to 2 months	228.79	363.56
Normative Working Capital	259.62	408.77
Interest Rate	10.25%	10.25%
Interest on Working Capital	26.35	41.90

Commission's analysis

The Commission has recomputed the interest on working capital on a normative basis using the revised approved values for FY 2010-11. The Commission has subtracted receivables of TPL-G (APP) in line with the approach followed in the MYT Order.

Table 191: Interest on Working Capital computed by Commission for FY 2010-11 on a normative basis

(Rs. crores)

Particulars	Approved as per the MYT Order	Computed by Commission on a normative basis using approved values
O&M Expenses for 1 month	15.69	15.69



Particulars	Approved as per the MYT Order	Computed by Commission on a normative basis using approved values
1% of GFA for maintenance spares	15.14	23.48
Receivables equivalent to 2 months*	228.79	208.15
Normative Working Capital	259.62	247.32
Interest Rate	10.25%	10.25%
Interest on Working Capital	26.35	25.35

* Receivables of TPL-G (APP) have been subtracted

The summary of interest on working capital for FY 2010-11 is provided in the following table.

Table 192: Interest on working capital approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Interest on working capital	26.35	41.90	25.35

4.2.7.6 Interest on Security Deposit

Petitioner's submission

The Commission, in the MYT Order, had approved the interest on security deposit for TPL-D as a whole, as 6% on the average balance of security deposit for the year. The expenses had been apportioned to Ahmedabad and Surat license areas based on the interest charges. TPL-Ahmedabad, in its petition, revised the estimate based on the opening balances and addition identified to each licensee area.

Table 193: Interest on Security Deposit estimated by Petitioner

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
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Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11
Interest on Security Deposit	11.01	9.53

Commission's analysis

The Commission has taken note of the methodology used by the Petitioner to project interest on security deposit for FY 2010-11. The Commission has approved it at the value estimated by the Petitioner.

The summary of interest on security deposit for FY 2010-11 is provided in the following table.

Table 194: Interest on interest on security deposit approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Interest on security deposit	11.01	9.53	9.53

4.2.7.7 Return on Equity

Petitioner's submission

TPL-Ahmedabad has revised the estimate on account of revision in closing equity for FY 2009-09 and revised capitalization for FY 2010-11. The equity addition for the year is considered at a normative proportion of 30% of the capital addition during the year. The return on equity computed as 14% on the average balance of equity for TPL-Ahmedabad is tabulated below.

Table 195: Return on Equity estimated by Petitioner

(Rs. crores)

Return on Equity computation	Approved as per the MYT Order *	Estimated by TPL-Ahmedabad for FY 2010-11
Opening equity		910.09
Equity addition during the year		96.43



Return on Equity computation	Approved as per the MYT Order *	Estimated by TPL-Ahmedabad for FY 2010-11
Equity at end of the year		1006.52
Return on Equity @ 14%	146.19	134.16

(*The Commission in the MYT Order has not approved opening, closing or equity addition during the year.)

Commission's analysis

The Commission has reviewed the opening equity and equity addition estimates used by the Petitioner and found them to be in line with closing equity approved for FY 2009-10 and net capitalization approved for FY 2010-11. Hence the Commission has accepted the Petitioner's computation on Return on Equity.

Table 196: Return on equity approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Return on equity	146.19	134.16	134.16

4.2.7.8 Income Tax

Petitioner's submission

In the MYT Order, the Commission had computed income tax as per the GERC Terms & Conditions of Tariff Regulations, 2005 by applying the rate of 33.99% on the permissible return i.e. return on equity (RoE). TPL-Ahmedabad has revised the tax calculation by considering RoE as the post tax return (PAT). The Petitioner has claimed deduction under Section 80IA of the Income Tax Act, 1961 and has estimated income tax at the Minimum Alternate tax rate.

Table 197: Income Tax for FY 2010-11 estimated by Petitioner

(Rs. crores)

Income Tax computation	Estimated by TPL-Ahmedabad for FY 2010-11
ARR including non-tariff income	2,234.72



Income Tax computation	Estimated by TPL-Ahmedabad for FY 2010-11
Total expense	2,073.09
PBT	161.63
Income tax	27.47
PAT	134.16

Commission's analysis

The Commission considers the permissible return for computation of income tax as Return on Equity, in line with the GERC Terms & Conditions of Tariff Regulations, 2005. It has noted that the MAT rate applied by the Petitioner is 16.99%. Thus the Commission has recomputed income tax for FY 2010-11 using the MAT rate. The actual income tax paid will be considered during the process of true-up when the audited accounts will be available.

Table 198: Income tax approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Income tax	49.69	27.47	22.79

4.2.7.9 Provision for bad and doubtful debts

Petitioner's submission

TPL-Ahmedabad, in its petition, has revised upwards the provision for bad debts. The provision for bad debts approved as per the MYT Order was Rs. 2.20 Crore which now has been re-estimated at Rs. 3 Crore.

Commission's analysis

The Commission has recomputed the provision for bad debts as 0.1% of the revenue in line with the approach adopted in the MYT Order.

Table 199: Provision for bad debts approved by Commission

(Rs. crores)



Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Provision for bad debts	2.20	3.00	2.14

4.2.7.10 Contingency Reserves

Petitioner's submission

TPL-Ahmedabad has kept the contingency reserve unchanged with respect to value approved as per the MYT Order i.e. Rs. 0.6 crores.

Commission's analysis

The Commission treats contingency reserve as controllable and approves it at value approved as per the MYT Order. Any variation in contingency reserve will be considered during the annual performance review for FY 2010-11. The summary of contingency reserve for FY 2010-11 is provided in the following table.

Table 200: Contingency reserve approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Contingency reserve	0.60	0.60	0.60

4.2.7.11 Non-Tariff income

Petitioner's submission

TPL-Ahmedabad, in its petition had projected non-tariff income for 2010-11 of Rs. 53.36 based on the revised non-tariff income for FY 2009-10 as against the value approved as per the MYT Order wherein the value approved was Rs. 84.86 crores.

Commission's analysis

The Commission has recomputed non-tariff income based on the YoY growth in the sales and using the revised approved non-tariff income for FY 2009-10.



Table 201: Non-Tariff income approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Non-Tariff income	84.86	53.36	55.84

4.2.8 Summary of ARR of TPL-Ahmedabad for FY 2010-11

Table 202: Summary of TPL-Ahmedabad ARR for FY 2010-11

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Ahmedabad for FY 2010-11	Revised Approved for FY 2010-11
Total Power Purchase Costs	1753.53	1658.10	1715.55
Fixed Costs			
Employee expenses	70.37	82.07	70.37
R&M expenses	82.25	98.45	82.25
A&G expenses	35.67	36.81	35.67
Depreciation	95.57	81.52	81.52
Interest on loans	130.60	61.12	61.12
Interest on security deposit	11.01	9.53	9.53
Interest on working capital	26.35	41.90	25.35
Return on equity	146.19	134.16	134.16
Provision for bad debts	2.20	3.00	2.14
Contingency reserve	0.60	0.60	0.60
Income tax	49.69	27.47	22.79
Total Fixed Costs	650.50	576.63	525.51
Gross ARR	2404.03	2234.73	2241.05
Non-Tariff income	84.86	53.36	55.84
Net ARR	2319.17	2181.37	2185.22



4.3 Surat Distribution

4.3.1 Sales

Petitioner's submission

TPL-Surat has forecasted sales for FY 2010-11 based on the actual sales for the first half of FY 2009-10. While revising the estimates, TPL-D has factored in corrections due to the recent recovery in the economy, based on partial end use survey. The main reasons for them is early revival of Diamond Industry and growth in Textile industry, which form substantial part of consumption in industrial & commercial categories of Surat and impact of changing overall economic conditions. The category-wise sales as estimated are shown below.

Table 203: Sales estimated by TPL-Surat for FY 2010-11

(MUs)

Categories	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11
Residential	642.00	562.77
Commercial	516.00	459.64
LTP	1929.00	1625.66
LTMD	271.00	174.37
HTMD-I	220.00	186.11
HTMD-II	39.00	46.02
Agriculture	1.00	0.72
GLP	25.00	22.72
Temporary	4.00	3.13
Total	3647.00	3081.14

TPL-Surat has on an overall basis projected reduction in sales due to economic slowdown. The reasons for difference in sales across various categories as explained by TPL-Surat are provided below:

Residential



TPL-Surat has assumed current trend i.e. YoY growth of FY 2009-10 estimated over FY 2008-09 which is 1.27 % and applied per capita consumption method to forecast for FY 2010-11. Thus the YOY growth of FY 2010- 11 estimates over FY 2009-10 works out to 3.34%.

Commercial

TPL-Surat has not considered the 3-year CAGR for this category but has instead taken YoY growth of FY 2009-10 estimated over FY 2008-09 which is 4.83 % and applied per capita consumption method to forecast for FY 2010-11. Thus the YOY growth of FY 2010- 11 estimates over FY 2009-10 works out to 3.44%.

Low Tension Power

The consumption in this category is mainly contributed by textile and diamond industry which has suffered a drastic slowdown due to the current economic conditions. This category was badly affected by the economic slowdown in FY 2008-09 and initial months of FY 2009-10. However, considering the recovery of the economic condition in the city, the projection for this category is based on the partial end use method wherein the YOY growth for the last year and the feedback from the end user survey have been taken into account.

Low Tension Maximum Demand

The consumption in this category is mainly contributed by diamond industries and they have suffered a drastic slowdown due to the current economic conditions. However, considering the recovery of the economic condition in the city, the projection for this category is based on the end use method wherein the YOY growth for the last year and the feedback from the consumers have been taken into account.

High Tension Maximum Demand

The consumption in this category is mainly attributed to the textile and diamond Industries in the Surat license area. The category is recovering at a fast rate post the economic slow down. Therefore, based on the feedback of the end use survey TPL-Surat has projected a positive growth in this category.

Others

This category includes GLP, Agriculture and Temporary. The forecast for FY 2010-11 in this category has been made using end use method.

Commission's analysis



The Commission analyzed the submissions made by TPL-Surat. As per the statistics issued by RBI, the growth rate of Indian economy dipped to 6.7% in FY 2008-09 from the high of 8.7% in FY 2007-08. However, the growth forecast for FY 2009-10 and FY 2010-11 is 7.5% each thus indicating a recovery phase from the economic recession.

The Commission has reviewed the growth rates used by TPL-Surat as shown in the following table:

Table 204: Growth rates for sales used by TPL-Surat

(%)

Categories	FY 2010-11 over FY 2009-10 (Estimated by TPL-Surat)
Residential	3.34%
Commercial	3.44%
LTP	3.96%
LTMD	9.38%
HTMD	3.38%

The Commission observes that except Residential, all other growth estimates of TPL-Surat are in line with the historical values. Hence, except for Residential, growth rate estimated by TPL-Surat for all the categories for FY 2010-11 are accepted by the Commission. For Residential, the Commission has considered the growth rate of 5.00% considering the past history of high growth seen in the Residential category. The Commission has applied these growth rates on the sales for FY 2009-10 approved in the APR of FY 2009-10 and thus estimated sales for FY 2010-11.

Table 205: Sales approved by Commission for FY 2009-10 and computed for FY 2010-11

(MUs)

Category	Approved for FY 2009-10 in APR of FY 2009-10	Computed by Commission for FY 2010-11
Residential	564.65	592.88
Commercial	444.36	459.63
LTP	1563.81	1625.66
LTMD	159.42	174.37
HTMD-I	189.52	195.93
HTMD-II	41.73	43.14



Category	Approved for FY 2009-10 in APR of FY 2009-10	Computed by Commission for FY 2010-11
Others	28.63	29.29
Total	2992.11	3120.91

Table 206: TPL-Surat category wise sales approved by Commission for FY 2010-11

(MUs)

Category	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Residential	642.00	562.77	592.88
Commercial	516.00	459.64	459.63
LTP	1929.00	1625.66	1625.66
LTMD	271.00	174.37	174.37
HTMD-I	220.00	186.11	195.93
HTMD-II	39.00	46.02	43.14
Agriculture	1.00	0.72	0.74
GLP	25.00	22.72	22.72
Temporary	4.00	3.13	3.11
DOE	0.00	0.00	2.72
Total	3647.00	3081.14	3120.91

The overall growth rate of sales approved for FY 2010-11 over FY 2009-10 is 4.30%.

4.3.1.1 Number of installations

Petitioner's submission

In order to project the number of installations in the licensee area, TPL-Surat has contacted the different categories of consumers such as builders, developers and industrialists, to track their future plan. For all the categories the projections of number of installations is based on the growth trend in the first half of FY 2009-10 and feed back from the end use survey.

The approved and revised estimate for the number of installations for FY 2010-11 is tabulated below.



Table 207: No. of installations estimated by Petitioner

Category	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11
Residential	410252	374267
Commercial	170575	171150
LTP	63439	63562
LTMD	1332	1117
HTMD	197	191
Others	2478	2420
Total	648273	612707

Commission's analysis

The Commission has observed that TPL-Surat has utilized growth rates between 2% and 6% to project number of installations for various categories, with an overall growth rate of 2.52%. Since this is consistent with the predictions of economic recovery for FY 2010-11, the Commission has accepted TPL-Surat's estimated growth rates and applied them on the approved figures for FY 2009-10 in the APR.

Table 208: No. of installations approved for TPL-Surat for FY 2010-11

Category	Revised Estimates considered for APR of FY 2009-10	Growth rates considered	Revised Approved for FY 2010-11
Residential	384924	2%	393245
Commercial	165207	3%	170036
LTP	59053	3%	61093
LTMD	1090	5%	1148
HTMD	194	6%	205
Others	2707	3%	2793
Total	613175		628520

The summary for number of installations is presented below.

Table 209: No. of installations approved for TPL-Surat for FY 2010-11



Category	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Residential	410252	374267	393245
Commercial	170575	171150	170036
LTP	63439	63562	61093
LTMD	1332	1117	1148
HTMD	197	191	205
Others	2478	2420	2793
Total	648273	612707	628520

4.3.2 Revenue from sale of power

Petitioner's submission

TPL-Surat has estimated revenues of Rs. 1162.89 crores by applying existing tariff on estimated sales figures.

Commission's analysis

The Commission has recomputed the revenue based on revised estimates for sales and number of installations which is shown below.

Table 210: Sales revenues approved by Commission for FY 2010-11

(Rs. crores)

Category	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11 at existing tariff
Residential	204.80	180.26	189.97
Commercial	223.43	205.55	205.58
LTP	700.23	598.96	598.29
LTMD	109.48	72.06	72.20
HTMD-1	91.08	77.04	81.40
HTMD-2	16.54	20.30	19.30
Agriculture	0.00	0.05	0.05
GLP	8.24	7.19	7.20
Temporary	1.88	1.47	1.46



Category	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11 at existing tariff
Total Sales	1355.68	1162.89	1175.45

4.3.3 Distribution loss

Petitioner's submission

TPL-Surat has estimated the distribution loss at 6.00% which is same as that approved as per the MYT Order.

Commission's analysis

The distribution loss for FY 2010-11 was approved at 6.00% in the MYT Order. The Commission is not approving the loss level again for FY 2010-11, but is recalculating it solely for the purpose of assessment of realistic energy requirement. The Commission has estimated the distribution loss for FY 2010-11 by assessing the YoY reduction trajectory approved in MYT Order between the FY 2009-10 and FY 2010-11 and applied the same on loss value considered in the APR of FY 2009-10.

Table 211: Distribution loss for TPL-Surat approved by Commission for FY 2010-11

Particulars	Approved as per the MYT Order		Considered for energy requirement	
	FY 2009-10	FY 2010-11	FY 2009-10	FY 2010-11
Distribution loss %	6.00%	6.00%	5.38%	5.38%

The summary for distribution loss is shown below.

Table 212: Distribution loss estimated by Commission

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Distribution loss considered for Energy requirement for FY 2010-11
Distribution loss %	6.00%	6.00%	5.38%



However, for the purpose of computation of gain/loss during true-up, the Commission shall consider the distribution loss approved as per the MYT Order.

4.3.4 Energy Requirement

Petitioner's submission

The Commission, in the MYT Order, had approved the energy requirement considering a distribution loss of 6% and a transmission loss of 51 MUs. The Petitioner in the ARR petition of FY 2010-11 has revised the energy requirement estimates. The variation in the energy requirement vis-à-vis requirement approved as per the MYT Order is mainly on account of change in sales and variation in transmission loss.

Table 213: Energy requirement estimated by TPL-Surat

(MUs)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11
Energy Sales	3647.00	3081.14
Distribution loss (%)	6.00%	6.00%
Distribution loss	233.00	196.67
Energy input at distribution level	3880.00	3277.81
Transmission loss	51.00	39.81
Energy requirement	3931.00	3317.62

Commission's analysis

For the calculation of energy requirement, the Commission has considered the revised sales and distribution loss estimated by the Commission. For transmission loss, the Commission has maintained the same transmission loss as percentage of total energy requirement as was estimated by TPL-Surat.

Based on the above analysis the Commission has calculated the energy requirement as shown below and considered the same for ARR of FY 2010-11.

Table 214: Energy requirement FY 2010-11 for TPL-Surat computed by the Commission

(MUs)



Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Energy Sales	3647.00	3081.14	3120.91
Distribution loss (%)	6.00%	6.00%	5.38%
Distribution loss	233.00	196.67	177.45
Energy input at distribution level	3880.00	3277.81	3298.36
Transmission loss	51.00	39.81	40.06
Energy requirement	3931.00	3317.62	3338.42

4.3.5 Energy Availability

Petitioner's submission

The Commission, in its MYT Order, had approved TPL-G (SUGEN) and Wind Energy as power sources for TPL-Surat. In the current petition the Petitioner has estimated the Energy Availability for TPL-D as a whole and not for each of the distribution areas separately.

TPL-D submitted that there has been reduction in the energy requirement leading to the reduction of utilization of the base load generation and hence in the reduced offtake from TPL-G (SUGEN). The loads of the supply areas have reduced marginally. The peak load is envisaged to be met through other sources. This is mainly because GUVNL has unilaterally stopped the supply of power to TPL-D from which the peak requirement was envisaged to be met. Till the time the bidding is not concluded, the extra requirement for both the supply area will be met through procurement from merchant capacity of TPL-G (SUGEN) or other sources. With regards to wind power, the Petitioner has stated that as per GERC (Power Procurement from Renewable Sources) Regulations, 2005 all the distribution licensees in the State of Gujarat need to procure power from renewable sources. The regulation specified minimum percentage of procurement of power till FY 2008-09. In the absence of guideline for RPPO for FY 2010-11 the TPL-D has assumed 2% RPPO.

The Petitioner has estimated the Energy Availability for the distribution business as a whole which is shown below:



Table 215: Energy Availability estimated for TPL-D

(MUs)

Energy sources	Energy Availability for TPL-D for FY 2010-11
TPL-G (APP)	3589.07
TPL-G (SUGEN)	5270.19
Other sources	259.75
Wind energy	117.35
Total	9236.35

Commission's analysis

Since the Petitioner did not provide the source-wise segregated Energy Availability, the Commission estimated the Energy Availability from various sources by making appropriate assumptions.

- The Commission considered the entire net generation as approved in this Order from TPL-G (APP) for Ahmedabad and no allocation has been done to TPL-Surat.
- The source "Others" as estimated by TPL-D has been completely allocated to Ahmedabad and no allocation has been made to Surat.
- The Wind energy as estimated by TPL-D has been allocated between Ahmedabad and Surat in the ratio of energy requirement of each license area.
- The balance energy requirement has been estimated to be met by SUGEN.

Table 216: Energy Availability approved for FY 2010-11 for TPL-Surat

(MUs)

Energy source	Approved as per MYT Order	Estimated by TPL-Surat	Revised Approved for FY 2010-11
TPL-G (SUGEN)	3639	-	3297.98
GUVNL/other sources	0	-	0.00
Wind energy	292	-	40.44
Total	3931	-	3338.42

4.3.6 Power purchase cost**Petitioner's submission**

The Petitioner has estimated Power Purchase cost of TPL-Distribution as a whole and not individually for TPL-Surat. The Power purchase rate from each source has also been mentioned for TPL-Distribution and not individually for the supply area.

Table 217: Power purchase cost estimated by TPL-D for FY 2010-11

Sources	Estimated by TPL-D for FY 2010-11
TPL-G (APP)	
Quantity in MUs	3589.07
Rate in Rs./kWh	2.57
Cost in Rs. crores	921.63
TPL-G (SUGEN)	
Quantity in MUs	5270.19
Rate in Rs./kWh	2.93
Cost in Rs. crores	1544.16
Other Sources	
Quantity in MUs	259.75
Rate in Rs./kWh	3.10
Cost in Rs. crores	80.52
Wind energy	
Quantity in MUs	117.35
Rate in Rs./kWh	3.51
Cost in Rs. crores	41.19
Total	
Quantity in MUs	9236.35
Rate in Rs./kWh	2.80
Cost in Rs. crores	2587.51

Commission's analysis

Though Petitioner has provided the total power purchase cost separately for Ahmedabad and Surat areas, but it has not provided with the source-wise power purchase cost. The Commission has estimated the power purchase cost by considering the per unit rates as were approved in the MYT Order.



Table 218: Power purchase cost for TPL-Surat approved by Commission

Sources	Approved as per MYT Order	Estimated by TPL-Surat	Revised Approved for FY 2010-11
TPL-G (SUGEN)			
Quantity in MUs	3639.00	-	3297.98
Rate in Rs./kWh	2.93	-	2.93
Cost in Rs. crores	1066.23	-	966.31
GUVNL/Other sources			
Quantity in MUs	-	-	-
Rate in Rs./kWh	-	-	-
Cost in Rs. crores	-	-	-
Wind energy			
Quantity in MUs	292.00	-	40.44
Rate in Rs./kWh	3.51	-	3.51
Cost in Rs. crores	102.49	-	14.19
Total			
Quantity in MUs	3931.00	-	3338.42
Rate in Rs./kWh	2.97	-	2.94
Cost in Rs. crores	1168.72	929.41	980.50

4.3.7 Fixed Costs

4.3.7.1 Operations & Maintenance expenses

TPL-Surat, in its petition for FY 2010-11, has estimated the following O&M expenses.

Table 219: O&M expenses estimated by TPL-Surat for FY 2010-11

(Rs. crores)

O&M expenses	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11
Employee Expenses	37.84	37.84
R&M Expenses	29.79	29.79
A&G Expenses	27.69	27.69



O&M expenses	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11
O&M Expenses	95.32	95.32

Employee expense

Petitioner's submission

TPL-Surat has estimated employee expenses at the same level as was approved as per the MYT Order.

Commission's analysis

The Commission treats employee expense as controllable and approves it as per the MYT Order. Any variation in actual expense will be considered during the performance review process for FY 2010-11.

Table 220: Employee expenses approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Employee Expenses	37.84	37.84	37.84

Repairs & Maintenance (R&M) expense

Petitioner's submission

TPL-Surat has estimated R&M expense at the same level as was approved in the MYT Order.

Commission's analysis

The Commission treats repairs & maintenance expense as controllable and approves it at the MYT Order level. Any variation in actual expense will be considered during the performance review process for FY 2010-11.

Table 221: R&M expenses approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
R&M Expenses	29.79	29.79	29.79



Administration & General (A&G) expense**Petitioner's submission**

TPL-Surat has stated that A&G expenses include rents, rates and taxes, legal expenses, professional fees, insurance, conveyance expenses, training expenses, printing and stationery etc. TPL-Surat has estimated the A&G expenses at the same level as was approved in the MYT Order.

Commission's analysis

The Commission treats A&G expense as controllable and approves it at the same level as was approved in the MYT Order. Any variation in actual expense will be considered during the performance review process for FY 2010-11.

Table 222: A&G expenses approved by Commission*(Rs. crores)*

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
A&G Expenses	27.69	27.69	27.69

4.3.7.2 Capital Expenditure, Capitalization & Sources of Financing**Petitioner's submission**

TPL-Surat submitted that it has reassessed the capital expenditure requirement for FY 2010-11 based on the capital expenditure incurred during the first six months of FY 2009-10. The Petitioner has further mentioned that the capital expenditures proposed for FY 2010 -11 are mainly on account of meeting the new load for the HT and LT and network upgradation and modernization. The Petitioner mentioned that capital expenditure for FY 2010-11 has been revised to Rs.89.09 Crores as against Rs.73.20 Crores approved in the MYT Order on account of commissioning of 66kV substation. The estimates are shown in the following table.

Table 223: Capital expenditure estimated by Petitioner*(Rs. crores)*

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11
EHV	1.34	13.22
HT Network	32.6	37.16
LT Network	17.14	16.82
Metering	19.03	15.08
Customer Care & IT Initiatives	3.11	6.82
Total	73.22	89.08

The main reasons for difference in investments as provided by TPL-Surat are discussed below.

Investment in EHV Network

The revised estimate of the capital expenditure under this head is Rs.13.22 Crores as against the amount approved as per the MYT Order wherein the Commission approved expenditure of Rs.1.34 Crores. The increase in the capital expenditure under this head is mainly on account of the following reason.

- Inclusion of the scheme for C-station (66kV) Bus modernization with conventional bay with an investment of Rs.0.53 Crores. This new scheme has been introduced keeping in mind the flow of power from SUGEN to Surat and due to the sudden disconnection from GETCO.
- Inclusion of the scheme for the 66kv interconnectivity between 220kv receiving stations to 66kv receiving stations where from GETCO points have been disconnected with an investment of Rs.11.15 Crores. At present power from SUGEN is sourced through double circuit lines from 220 kV EHV substation at Puna to 'E' receiving station at Surat. Considering the standard (n-1) principle for network design, one additional circuit has been proposed between the EHV substation at Puna and 'E' receiving station. This is done in order to build in redundancy in the system. Similarly, another link has been proposed between 'F' receiving station and 'F1' receiving station to build in redundancy.
- The capital expenditure of Rs.0.05 Crores planned towards the capacitor banks at the receiving station has been deferred for the year.



- Inclusion of the scheme for procurement of the demand forecasting software for ABT operations for an investment of Rs. 0.14 Crores. This capital expenditure has been planned keeping in mind the introduction of intra-state ABT in Gujarat by the Commission.

Investment in HT Network

The revised estimate of the capital expenditure under this head is Rs.37.16 Crores as against the approved value as per the MYT Order wherein the approved expenditure was of Rs.32.60 Crores. The increase in the capital expenditure under this head is mainly on account of the following reasons:

- The capital expenditure proposed under the head HT network strengthening & development has mainly increased due to the procurement of cable fault locating van for 11kV & 66 kV under ground network at a cost of Rs.1.17Crores.
- The capital expenditure proposed under the head distribution transformers has been reduced keeping in mind the reduction in load growth. Accordingly the capital expenditure proposed in HT network strengthening & development, distribution transformer, 11 kV switchgears, substations and others and miscellaneous expenditure has also been revised.
- The automation project (SCADA) has been implemented in 2008-09 and 2009-10. For FY 2010-11 TPL-D proposes to implement, 11 kV Feeder automation for improving 11 kV network reliability, in phases. The capital expenditure for the first phase that is to be implemented in FY 2010-11 is estimated at Rs.5.97 Crores.
- The capital expenditure for LT panel has been revised due to higher per unit cost of LT panel as compared to earlier projections.

Investment in LT Network

Reduction in investment is mainly due to reduction in load growth

Investment in Metering

Reduction in investment is mainly due to reduction in installation and replacement of meters.

Investment in Customer Care & IT



The investment in Customer care and IT has been revised upwards in comparison with the values approved as per the MYT Order. The increase in the capital expenditure under this head is mainly on account of the following reasons:

- The investment proposed for GIS in FY 2010-11 is a carry over activity relating to Integration of GIS with SCADA/EMS/DMS & SAP Software amounting to Rs. 0.82 Crores. An Investment of Rs. 0.5 Crores is proposed for Implementing new application / reports development and remote updating of GIS database from field using Personal Digital Assistance Procurement of satellite image to capture the land base.
- The investment under Information Technology has been revised to Rs.1.65 Crores as against approved expenditure of Rs. 1.42 Crores mainly on account of revision in the cost of hardware & software and rescheduling of the implementation plan for SAP.
- The investment under the head customer care has been revised upwards to Rs. 3.83 Crores as against the approved expenditure of Rs. 1.69 Crores mainly on account of deferment of expenses at A&B receiving stations and civil cost towards modification work in EHV switch yard and control room and furniture's and fixtures from FY 2009-10.

In summary, although most of the capital expenditure heads have shown increased capital expenditure, the overall capital expenditure has primarily increased due to investment in EHV network.

TPL-Surat has further proposed a normative debt equity ratio of 70:30 for funding the capital expenditure as per regulations. Break up of sources of fund between debt and equity is presented in the table below.

Table 224: Capitalization and Debt: Equity requirement estimated by TPL-Surat

(Rs. crores)

Particulars	Approved as per the MYT Order *	Estimated by TPL-Surat for FY 2010-11
Capital expenditure	73.21	89.09
Capitalization (net of SLC)		79.17
Debt %		70
Debt		55.42



Particulars	Approved as per the MYT Order *	Estimated by TPL-Surat for FY 2010-11
Equity		23.75

* Capitalization and sources of financing were not approved as per the MYT Order.

Commission's analysis

The Commission has observed that the TPL-Surat has estimated an upward revision of the capital expenditure. Since the Commission has treated capital expenditure as uncontrollable, the Commission accepts TPL-Surat's estimates. Any deviation in the actual expenditure and capitalization will be reviewed during APR of FY 2010-11.

The summary of the Commission's analysis is provided in the following table:

Table 225: Capital expenditure and sources of financing approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Capital expenditure	73.21	89.09	89.09
Capitalization (net of SLC)		79.17	79.17
Debt %		70	70
Debt		55.42	55.42
Equity		23.75	23.75

4.3.7.3 Interest expenses

Petitioner's submission

In its petition for FY 2010-11, TPL-Surat identified loans for each area and reallocated the interest expenses on the existing loans on the basis of opening balances of the loans for FY 2010-11 for each area. On the basis of this TPL-Surat has now worked out the interest on existing loans for FY 2010-11 as follows.

Table 226: Interest Expense on existing loans for FY 2010-11 estimated by Petitioner

(Rs. crores)

Existing loans Surat	FY 2010-11
APDRP	



Existing loans Surat	FY 2010-11
Opening balance	23.73
Interest rate	9.00%
Interest expense	2.09
HDFC 2A	
Opening balance	32.69
Interest rate	11.50%
Interest expense	3.38
LIC	
Opening balance	87.50
Interest rate	11.00%
Interest expense	9.13
IDFC-I	
Opening balance	35.71
Interest rate	8.23%
Interest expense	2.25
IDBI	
Opening balance	73.33
Interest rate	11.00%
Interest expense	7.63
IDFC-II	
Opening balance	225.00
Interest rate	11.00%
Interest expense	17.89
BOB	
Opening balance	45.01
Interest rate	10.75%
Interest expense	4.66
Total	
Opening balance	522.98
Interest rate	9%-11%
Interest expense	47.03



Further, TPL-Surat has estimated interest expenses on new loans based on normative parameters considering 70% of capitalization as debt requirement and an interest rate of 11%.

Table 227: Interest Expense on new loans for FY 2010-11 estimated by Petitioner

(Rs. crores)

New loan sub-heads	Estimated
Capital expenditure during the year	89.09
Capitalization during the year	89.09
Less SLC addition	9.92
Normative Debt @ 70%	55.42
Opening balance	0.00
Additions	55.42
Closing balance	55.42
Average balance	27.71
Interest expenses @ 11%	3.05

Commission's analysis

In order to assess the interest on existing loans, the Commission studied the data formats submitted by the Petitioner detailing the schedule of loans obtained. It has reviewed the figures of opening and closing balances and the interest rates used. In case of the loan IDBI Surat, the Commission has observed inconsistencies in the opening balance with respect to submission made by the Petitioner for FY 2009-10. The Commission has considered the closing balance of FY 2009-10 as the opening balance for FY 2010-11 and has not considered any repayment of the loan during FY 2010-11. The computation of interest expense for existing loans is shown in the following table.

Table 228: Interest Expense on existing loans compared for FY 2009-10 and FY 2010-11

(Rs. crores)

Loan sub-heads	FY 2009-10	FY 2010-11
APDRP Surat (Rs. 26.81 crores)		
Opening	24.40	23.73
Repayment	0.67	1.21
Additions	-	-
Closing	23.73	22.52



Loan sub-heads	FY 2009-10	FY 2010-11
Interest rate	9.00%	9.00%
Interest expense	2.17	2.09
HDFC 2 Surat (Rs. 50 crores)		
Loan opening	40.38	32.69
Additions	-	
Repayment	7.69	7.69
Loan closing	32.69	25.00
Interest rate	11.50%	11.50%
Interest exp	3.95	3.38
LIC – (Rs. 100 crores)		
Loan opening	97.50	87.50
Repayment	10.00	10.00
Loan closing	87.50	77.50
Interest rate	11.00%	11.00%
Interest exp	10.23	9.13
IDFC-1 Surat (Rs. 100 crores)		
Loan opening	50.00	35.71
Repayment	14.29	14.29
Loan closing	35.71	21.42
Interest rate	8.23%	8.23%
Interest exp	3.42	2.25
IDFC-2 Surat (Rs. 250 crores)		
Loan opening	250.00	225.00
Additions	-	-
Repayment	25.00	25.00
Loan closing	225.00	200.00
Interest rate	11.00%	11.00%
Interest exp	25.29	17.89
IDBI Surat (Rs. 200 crores)		
Loan opening ¹	20.96	20.96
Additions	-	-
Repayment	-	-

¹ Estimated as Rs. 90.00 crores and Rs. 73.33 crores by TPL-Surat for FY 2009-10 and FY 2010-11 respectively



Loan sub-heads	FY 2009-10	FY 2010-11
Loan closing	20.96	20.96
Interest rate	11.00%	11.00%
Interest exp	2.19	2.19
BOB Loan		
Loan opening		
Additions	45.01	45.01
Repayment		3.38
Loan closing		41.64
Interest rate		10.75%
Interest exp	3.32	4.658
Total interest on loans	57.80	41.59

For new loans, the Commission has studied the data formats submitted by the Petitioner. It has reviewed the opening and closing balances. It has observed that the interest rate of 11% used by the Petitioner is in line with the market rates.

Thus, the Commission accepts the Petitioner's submission in regards to interest on new loans.

Table 229: Interest expense approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Interest expense	26.13	50.08	44.64

4.3.7.4 Depreciation

Petitioner's submission

In its petition, TPL-Surat has estimated depreciation using CERC rates, based on the revised GFA and capitalization for FY 2010-11. The depreciation has been calculated using straight line method.

Table 230: Depreciation for FY 2010-11 estimated by TPL-Surat

(Rs. crores)

Particular	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11
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Particular	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11
Depreciation	45.99	41.09

Commission's analysis

The Commission computed the opening and closing GFA for FY 2010-11 based on the closing GFA of FY 2009-10 and capitalization for FY 2010-11. The Commission has reviewed depreciation computed by TPL-Surat on the different asset classes like P&M, buildings, vehicles, etc. and found the computation to be appropriate.

Table 231: Depreciation approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Depreciation	45.99	41.09	41.09

4.3.7.5 Interest on Working Capital

Petitioner's submission

In its petition, TPL-Surat has revised the estimate for interest on working capital and recomputed the same based on normative parameters.

Table 232: Interest on Working Capital for FY 2010-11 estimated by Petitioner

(Rs. crores)

Working capital components	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11
O&M Expenses for 1 month	7.94	7.94
1% of GFA for maintenance spares	4.78	14.20
Receivables equivalent to 2 months	243.84	203.55
Normative Working Capital	256.56	225.70
Interest rate	10.25%	10.25%
Interest on Working Capital	26.30	23.13

Commission's analysis



The Commission has recomputed the interest on working capital on a normative basis using the revised approved values for FY 2010-11.

Table 233: Interest on Working Capital computed by Commission for FY 2010-11 on a normative basis

(Rs. crores)

Particulars	Approved as per the MYT Order	Computed by Commission on a normative basis using revised approved values
O&M Expenses for 1 month	7.94	7.94
1% of GFA for maintenance spares	4.78	13.31
Receivables equivalent to 2 months	243.84	195.91
Normative Working Capital	256.56	217.16
Interest Rate	10.25%	10.25%
Interest on Working Capital	26.30	22.26

The summary of interest on working capital for FY 2010-11 is provided in the following table.

Table 234: Interest on working capital approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Interest on working capital	26.30	23.13	22.26

4.3.7.6 Interest on Security Deposit

Petitioner's submission

The Commission, in the MYT Order, had approved the interest on security deposit for TPL-D as a whole, as 6% on the average balance of security deposit for the year. The expenses had been apportioned to Ahmedabad and Surat license areas based on the interest charges. TPL-Surat, in its petition, revised the estimate based on the opening balances and addition identified to each licensee area.



Table 235: Interest on Security Deposit for FY 2010-11 estimated by Petitioner

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11
Interest on Security Deposit	5.97	8.51

Commission's analysis

The Commission has taken note of the methodology used by the Petitioner to project interest on security deposit for FY 2010-11. The Commission has approved it at the value estimated by the Petitioner.

The summary of interest on security deposit for FY 2010-11 is provided in the following table:

Table 236: Interest on interest on security deposit approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Interest on security deposit	5.97	8.51	8.51

4.3.7.7 Return on Equity

Petitioner's submission

TPL-Surat has revised the estimate on account of revision in closing equity for FY 2009-09 and revised capitalization for FY 2009-10. The equity addition for the year is considered at a normative proportion of 30% of the capital addition during the year. The return on equity computed as 14% on the average balance of equity for TPL-Surat is tabulated below.

Table 237: Return on Equity for FY 2010-11 estimated by Petitioner

(Rs. crores)

Return on Equity computation	Approved as per the MYT Order *	Estimated by TPL-Surat for FY 2010-11
Opening equity		526.65
Equity addition during the year		23.75



Return on Equity computation	Approved as per the MYT Order *	Estimated by TPL-Surat for FY 2010-11
Equity at end of the year		550.41
Average equity		538.53
Return on Equity @ 14%	78.77	75.39

(* The Commission in the MYT Order has not approved opening, closing or equity addition during the year.)

Commission's analysis

The Commission has reviewed the opening equity and equity addition estimates used by the Petitioner and found them to be in line with closing equity approved for FY 2009-10 and net capitalization approved for FY 2010-11. Hence the Commission has accepted the Petitioner's computation on Return on Equity.

Table 238: Return on equity approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Return on equity	78.77	75.39	75.39

4.3.7.8 Income Tax

Petitioner's submission

In the MYT Order, the Commission had computed income tax as per the GERC Terms & Conditions of Tariff Regulations, 2005 by applying the rate of 33.99% on the permissible return i.e. return on equity (RoE). TPL-Surat has revised the tax calculation by considering RoE as the post tax return (PAT). The Petitioner has claimed deduction under Section 80IA of the Income Tax Act, 1961 and has estimated income tax at the Minimum Alternate tax rate.

Table 239: Income Tax for FY 2010-11 estimated by Petitioner

(Rs. crores)

Income Tax computation	Estimated by TPL-Surat for FY 2010-11
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Income Tax computation	Estimated by TPL-Surat for FY 2010-11
ARR including non-tariff income	1,239.94
Total expense	1,149.91
PBT	90.83
Income tax	15.44
PAT	75.39

Commission's analysis

The Commission considers the permissible return for computation of income tax as Return on Equity, in line with the GERC Terms & Conditions of Tariff Regulations, 2005. It has noted that the MAT rate applied by the Petitioner is 16.99%. Thus the Commission has recomputed income tax for FY 2010-11 using the MAT rate. The actual income tax paid will be considered during the process of true-up when the audited accounts will be available.

Table 240: Income tax approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Income tax	26.09	15.44	12.81

4.3.7.9 Provision for bad and doubtful debts

Petitioner's submission

TPL-Surat, in its petition, has estimated provision for bad debts at Rs. 1.16 crores.

Commission's analysis

The Commission has recomputed the provision for bad debts as 0.1% of the revenue in line with the approach adopted in the MYT Order

Table 241: Provision for bad debts approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
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Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Provision for bad debts	1.36	1.16	1.18

4.3.7.10 Contingency Reserves

Petitioner's submission

TPL-Surat has kept the contingency reserve unchanged with respect to value approved as per the MYT Order i.e. Rs. 0.4 crores.

Commission's analysis

The Commission treats contingency reserve as controllable and approves it at value approved as per the MYT Order. Any variation in contingency reserve will be considered during the annual performance review for FY 2010-11. The summary of contingency reserve for FY 2010-11 is provided in the following table.

Table 242: Contingency reserve approved by Commission

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Contingency reserve	0.40	0.40	0.40

4.3.7.11 Non-Tariff income

Petitioner's submission

TPL-Surat, in its petition had projected non-tariff income for 2010-11 of Rs. 18.62 based on the revised non-tariff income for FY 2009-10 as against the value approved as per the MYT Order wherein the value approved was Rs. 29.76 crores.

Commission's analysis

The Commission has recomputed non-tariff income based on the YoY growth in the sales and using the revised approved non-tariff income for FY 2009-10.

Table 243: Non-Tariff income approved by Commission

(Rs. crores)



Particulars	Approved as per the MYT Order	Revised estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Non-Tariff income	29.76	18.62	19.82

4.3.8 Summary of ARR of TPL-Surat for FY 2010-11

Table 244: Summary of TPL-Surat ARR for FY 2010-11

(Rs. crores)

Particulars	Approved as per the MYT Order	Estimated by TPL-Surat for FY 2010-11	Revised Approved for FY 2010-11
Total Power Purchase Costs	1168.72	929.41	980.50
Fixed Costs			
Employee expenses	37.84	37.84	37.84
R&M expenses	29.79	29.79	29.79
A&G expenses	27.69	27.69	27.69
Depreciation	45.99	41.09	41.09
Interest on loans	26.13	50.08	44.64
Interest on security deposit	5.97	8.51	8.51
Interest on working capital	26.30	23.13	22.26
Return on equity	78.77	75.39	75.39
Provision for bad debts	1.36	1.16	1.18
Contingency reserve	0.40	0.40	0.40
Income tax	26.09	15.44	12.81
Total Fixed Costs	306.33	310.53	301.60
Gross ARR	1475.05	1239.94	1282.10
Non-Tariff income	29.76	18.62	19.82
Net ARR	1445.29	1221.32	1262.28



5 Tariff Philosophy & Design

5.1 Gap / Surplus at existing tariff

The Commission has assessed and reworked the Petitioner's gap / surplus estimates for the years FY 2009-10 and FY 2010-11 at existing tariffs.

5.1.1 Gap / Surplus for FY 2009-10

Table 245: Gap / Surplus summary for TPL-Ahmedabad

(Rs. crores)

Particulars	Approved in Order dated 9-12-2009	Estimated by TPL	Revised estimates considered for APR of FY 2009-10
Net ARR	1945.47	2259.94	1925.20
Revenue	1904.69	2149.52	1971.32
Resultant Gap / (Surplus) for FY 2009-10	40.77	110.42	(46.12)

Table 246: Gap / Surplus summary for TPL-Surat

(Rs. crores)

Particulars	Approved in Order dated 9-12-2009	Estimated by TPL	Revised estimates considered for APR of FY 2009-10
Net ARR	1222.70	1300.89	1240.35
Revenue	1090.94	1310.02	1172.32
Resultant Gap / (Surplus) for FY 2009-10	131.77	(9.13)	68.02



5.1.2 Gap / Surplus for FY 2010-11

Table 247: Gap / Surplus summary for TPL-Ahmedabad

(Rs. crores)

Particulars	Approved in MYT Order	Estimated by TPL	Computed by Commission at existing tariff
Net ARR	2319.17	2181.37	2185.22
Revenue	2200.92	2004.51	2144.34
Resultant Gap / (Surplus) for FY 2010-11	118.25	176.87	40.87

Table 248: Gap / Surplus summary for TPL-Surat

(Rs. crores)

Particulars	Approved in MYT Order	Estimated by TPL	Computed by Commission at existing tariff
Net ARR	1445.29	1221.32	1262.28
Revenue	1355.68	1162.89	1175.45
Resultant Gap / (Surplus) for FY 2010-11	89.61	58.43	86.84

5.1.3 Gap / Surplus for the control period at existing tariffs

The following tables summarize the combined gap / surplus estimated for the entire control period at existing tariffs. For FY 2008-09, the gap / surplus is as per the order related to Case No. 1001/2010 of TPL's Review Petition seeking clarifications/rectifications of the Commission's order dated 9th December, 2009 (Case No. 966/2009) wherein the Commission has reworked the gap / surplus for FY 2008-09.

Table 249: Combined Gap / Surplus estimated for the control period at existing tariffs

(Rs. crores)



Resultant Gap / (Surplus)	FY 2008-09 (actual)	FY 2009-10 (estimated by Commission at existing tariff)	FY 2010-11 (estimated by Commission at existing tariff)	Total for the control period
TPL-Ahmedabad	(63.29)	(46.12)	40.87	(68.53)
TPL-Surat	31.85	68.02	86.84	186.71

5.2 Tariff Philosophy

The Commission has been guided by the provisions of the Electricity Act, 2003, the National Electricity Policy (NEP), the Tariff Policy, the Terms and Conditions of Tariff Regulations issued by the Central Electricity Regulatory Commission and the Terms and Conditions of Tariff Regulations and MYT Regulations notified by the Commission. Section 61 of the Electricity Act lays down the broad principles, which should guide determination of retail tariff. These principles envisage that tariff should progressively reflect cost of supply of electricity and also reduce the cross subsidies within a period to be specified by the Commission.

5.2.1 Petitioner's submission

The Petitioner has proposed several structural changes in the existing tariff. This includes a common tariff structure in the supply areas of Ahmedabad and Surat. In case of motive power services (LTP and LTMD), TPL has proposed to replicate the existing tariff categories in Ahmedabad license area to Surat license area wherein the tariff category is mainly segregated into Residential Pumping and other than Residential pumping. Further, TPL has proposed to adopt the existing cut-off for LTP category of 15 BHP in Ahmedabad supply area for both the areas with a view to bringing in demand based categorization. According to TPL, this shall help in regulating excess drawal over and above the contracted capacity, which in turn brings in discipline in the power usage.

In respect of HT category for both Ahmedabad and Surat supply areas, TPL has proposed to restructure it into three categories i.e. HTMD-I (Industrial), HTMD-II (Commercial) and HTMD-III (Pumping by local Authority).



Based on the above modifications to the existing tariff categories, TPL has proposed tariff categories for its Ahmedabad & Surat Supply areas as under:

Table 250: Major Tariff categories proposed under Uniform Tariff structure

LT Categories	HT Categories
Residential General Purpose (RGP)	High Tension Maximum Demand – I (Industrial)
Commercial General Purpose (CGP) / Industrial General Purpose (IGP)	High Tension Maximum Demand – II (Commercial)
Low Tension Power – I	High Tension Maximum Demand – III (Pumping, Local authority)
Low Tension Power – II	
Low Tension Maximum Demand – I	
Low Tension Maximum Demand – II	
Others (GLP, Agriculture, Streetlight, temporary etc.)	

Further, TPL has proposed certain measures for demand side managements such as:

- **Time of Use (ToU) charges / Rebate:** ToU charges for all HT consumers in Ahmedabad and Surat. Extension of Night Time Concession to HTMD-1 and HTMD-3 categories in Ahmedabad and Surat for entire consumption during specified night hours instead of the earlier incremental consumption
- **Load factor incentive:** Load factor incentive for all HT categories in Ahmedabad and Surat license areas.
- **Power Factor (PF) adjustment charges & rebate:** Power factor adjustment charges and rebate for all HT categories and LTMD category in Ahmedabad and Surat license areas.
- **Prompt payment discount:** Discontinuing the discount in Ahmedabad area.

5.2.2 Tariff rationalization is the key focus

The Commission has noted the tariff related proposals made by the Petitioner. The Commission has, keeping in view the issues raised during public hearing and on various occasions in the past, attempted to rationalize the tariff structure. The rationales for tariff rationalization are as mentioned below.



- **Reduction in number of slabs:** In order to simplify the current multiple-slab structure in Surat area (five and six slabs) the Commission has reduced the number of slabs for Residential and Commercial categories. The Commission is of the opinion that this will bring more clarity and will simplify the tariff structure
- **Recasting tariff category definitions:** Tariff category definitions have been rationalized by grouping similar applications together and creating separate categories for different applications. For instance, earlier in Surat, industrial and local authority pumping applications were clubbed together in a category (HTMD-1) and Commercial applications were under a separate category (HTMD-2). These have now been modified to include industrial and commercial applications under one category (HTMD-1) and pumping applications in another category (HTMD-2). Further, some of the tariff categories, which were redundant since there were either not enough consumers adopting them or the definitions of categories were not distinct enough, have been merged. This has been done in Ahmedabad area by combining the IGP, CGP and CN (Cinema) categories into the CGP category.
- **Demand based tariff:** In order to bring more consumers under the demand based tariff, the cut-off limit for LTP category in Surat area has been reduced from 50 BHP to 15 BHP. Consumers would be benefited since their fixed charge shall now be based on actual demand used rather than the connected load.
- **Introduction of BPL category:** A BPL category has been introduced in the supply areas of Ahmedabad and Surat under the Residential category

5.2.3 Tariff rationalization results in a moderate tariff hike

Tariff rationalization can result in increase or decrease in some categories of tariff. An overall decrease in revenue due to tariff rationalization may adversely affect the finances of the utility. Hence, some tariff increase to prevent such a situation is necessary. The reasons for moderate tariff hike are as mentioned below:

- **Revenue Gap:** The Commission has estimated that the Surat distribution business will have a revenue gap of almost Rs. 187 Crores for the control period. The tariff hike has been undertaken to cover this gap partially. A moderate hike for Ahmedabad area has also been included. The Commission is of the opinion



that gradual tariff increase would safeguard consumers in the long term from any tariff shock which might arise in the future.

- **Rationalization will lead to moderate increase in tariff:** As discussed above, the Commission has tried to rationalize the present tariff structure in order to remove practical difficulties of implementation. In view of this rationalization, there is a moderate tariff hike.
- **Impact of Tariff hike is neutralized by reduction in FPPPA:** It is expected that the consumer will not be affected adversely due to the tariff hike as there shall be a reduction in FPPPA charges which can neutralize the impact of tariff hike.

5.2.4 Changes in tariff schedule

Changes in the tariff schedule are enumerated below.

1. Introduction of a slab for BPL families (0-30 units) in Ahmedabad and Surat residential categories with energy charge of 150 paise/unit
2. Increase in energy charge across categories (except Agriculture) by 5 to 15 paise per unit. No increase in fixed charges
3. Merging of Industrial General Purpose (IGP), Commercial General Purpose (CGP) and Cinema Theatres (CN) categories in Ahmedabad area into a single category known as CGP / IGP
4. Reduction in the number of slabs for Surat Residential category from the present six slabs to four slabs by combining slab numbers iii (101-200) and iv (201-250) to form a new slab numbered iii (101-250) and by combining slab numbers v (251-300) and vi (300+) to form a new slab numbered iv (250+)
5. Reduction in the number of slabs for Surat Commercial category from the present six slabs to five slabs by restructuring slab numbers iii (101-150) and iv (151-500) to form two new slabs numbered iii (101-200) and iv (201-500) and by combining slab numbers v (501-1000) and vi (Above 1000) to form a new slab numbered v (Above 500)
6. Lowering of cut-off limit for Surat LTP category from the present 50 BHP to 15 BHP
7. Introduction of a new slab for Surat LTMD (0-20 kVA) to accommodate consumers who switch from LTP to LTMD. Lowering of the minimum demand to be billed to 6 KVA from the earlier 20 kVA



8. Surat HTMD-1 to consist of all HT consumers other than pumping stations
9. Surat HTMD-2 to consist of HT-Pumping stations

5.3 Approved Gap / Surplus at New Tariff

5.3.1 Gap / Surplus for FY 2010-11

Table 251: Gap / Surplus summary for TPL-Ahmedabad

(Rs. crores)

Particulars	Approved in MYT Order	Estimated by TPL	Computed by Commission at existing tariff	Revised Approved for FY 2010-11
Net ARR	2319.17	2181.37	2185.22	2185.94
Revenue	2200.92	2004.51	2144.34	2184.26
Resultant Gap / (Surplus) for FY 2010-11	118.25	176.87	40.87	1.68

Table 252: Gap / Surplus summary for TPL-Surat

(Rs. crores)

Particulars	Approved in MYT Order	Estimated by TPL	Computed by Commission at existing tariff	Revised Approved for FY 2010-11
Net ARR	1445.29	1221.32	1262.28	1262.91
Revenue	1355.68	1162.89	1175.45	1210.33
Resultant Gap / (Surplus) for FY 2010-11	89.61	58.43	86.84	52.58

5.3.2 Gap / Surplus for the control period at New Tariff



The following tables summarize the combined gap / surplus estimated for the entire control period at new tariff.

Table 253: Combined Gap / Surplus estimated for the control period at New Tariff

(Rs. crores)

Resultant Gap / (Surplus)	FY 2008-09 (actual)	FY 2009-10	FY 2010-11	Total for the control period
TPL-Ahmedabad	(63.29)	(46.12)	1.68	(107.73)
TPL-Surat	31.85	68.02	52.58	152.45



6 Compliance of Earlier Directives and Issue of Fresh Directives

6.1 Earlier Directives

The Commission in its tariff order dated 9th December 2009, had issued various directives to TPL. TPL submitted the compliance on the directives as part of the data for the current petition for APR of FY 2009-10 and ARR of FY 2010-11.

The Commission's comments on the status of compliance of the directives and issue of fresh directives to TPL are given below.

Directive 1: Quality of Service

TPL to give wide publicity to the "Customer Charter" in various forms of appropriate mass media and submit the proofs of the same within 3 months of the issue of the order dated 9th December, 2009.

Compliance

In compliance to the directive, TPL has stated that it has submitted the Customer Charter for the approval vide its letter dated 30th November, 2007. However, the same is pending for the approval of the Commission. TPL will publish the Customer Charter upon the approval of the Commission.

Commission's comments

TPL is directed to re-submit an updated version of the "Customer Charter" since the above mentioned charter submitted by TPL is more than two years old.

Directive 2: Customer friendly attitude (customer satisfaction survey)

TPL to update the Commission on status of the customer satisfaction survey within 15 days of the date of issue of the order dated 9th December, 2009.



Compliance

TPL has submitted that it has appointed an Independent Agency for carrying out the customer satisfaction survey. The Agency has already started field visits. The Commission has been apprised of the status vide the letter dated 24th December 2009.

Commission's comments

The compliance is noted.

Directive 3: Capital expenditure

In view of the general criticism by various stakeholders of over-investment by TPL which only adds to asset value without corresponding benefit to the consumer, TPL shall undertake cost benefit analysis for all capital expenditure above Rs. 5 crores and submit the details to the Commission.

Compliance

TPL submitted that it had made a detailed presentation on the capital expenditure proposed in the MYT Petition explaining the rationale and needs for incurring capital expenditure. Based on the same, the Commission had approved the Capital Expenditure for the MYT Period. In compliance to the directive, TPL will submit the details as per the guidance of the Commission.

Commission's comments

TPL is directed to submit cost benefit analysis of capital expenditure schemes to be undertaken during the FY 2010-11 within 3 months.

Directive 4: Cost of Supply

TPL to submit the cost of supply for each consumer group in the APR petition for FY 2009-10.

Compliance

In compliance to the directive, TPL has stated that it has submitted the cost of supply calculations in its APR and Tariff Proposal Petition. It has further submitted that cost of supply is linked with the voltage of supply and does not depend upon the tariff category. The cost of supply is same for all tariff categories connected at a given voltage level.



Commission's comments

The Commission has noted that TPL has provided voltage-wise cost of supply computations and has stated that cost of supply does not depend on consumer category. However, the Commission is of the opinion that cost of supply for each consumer category depends on its contribution to peak load and load usage pattern. Hence a more comprehensive study regarding cost of supply is essential which considers cost of power generation and power purchase.

Directive 5: Business Plan

TPL to submit business plans for five years i.e. FY 2011-12 to FY 2015-16 while filing the petition for the next control period.

Compliance

TPL has taken note of the directive and will submit the Business Plan for the next five years in accordance to the Commissions directive

Commission's comments

The compliance is noted

Directive 6: Estimating Heat Rates

TPL to estimate heat rates based on GCV of coal. TPL should also adopt the recommendations of the CEA report.

Compliance

In compliance to the directive, TPL has submitted the data on GCV basis as well as on NCV basis in the present petition. TPL will make necessary submission on the findings of the CEA Report based on a detailed study of the same.

Commission's comments

The Commission has noted that TPL has submitted SHR data on a GCV basis in the petition. Further, TPL, vide its letter date 02 March, 2010, has also submitted revised SHR data on GCV basis after measuring calorific value on as fired basis rather than as



received basis in accordance with the CEA recommendations. Thus the compliance on this matter is considered satisfactory by the Commission.

Directive 7: Separate Books of Accounts

TPL should maintain separate books of accounts from FY 2010-11 onwards in regard to the following:

1. Generating Business
2. Ahmedabad Distribution license
3. Surat Distribution license

Further, the books of accounts of each of these businesses should be audited annually and the audited accounts should form part of the annual submissions i.e. Aggregate Revenue Requirement and Annual Performance Review.

Compliance

In compliance to the directive, TPL has submitted that being registered under the Companies Act, 1956, it follows and maintains the accounts as per the Accounting Standards specified by the Institute of Chartered Accountants of India. As per the same, TPL has submitted business wise profit & loss accounts duly certified by the Statutory Auditors' for FY 2008-09. TPL will submit the same in future too.

Commission's comments

TPL should submit separate audited accounts for Generation, Ahmedabad distribution and Surat distribution as part of the annual submission to the Commission. Clause 5.2 of MYT Regulation provides that the Generating Company or Licensee shall file '**separate**' accounting statements with the petition for ARR or the annual review of performance. Accounting Statement has been defined under Clause 2.1(a) of the MYT Regulations so as to consist of Balance Sheet, Profit & Loss account and the Cash Flow Statement along with all necessary schedules.

Directive 8: Voltage Fluctuations, Installation of Capacitors & Reactive Compensation

TPL should guide consumers about appropriate quantum of capacitance required per kW of load to maintain 0.9 power-factor for their load pattern, taking into account the latest requirement of distribution network. TPL should also revise the circular in this



regard for requirement of capacitors per kW of load from time to time. TPL should guide and create awareness amongst consumers for reactive compensation along with monitoring the voltage level.

Compliance

TPL has stated that it has noted the directive of the Commission and will take necessary steps to create awareness amongst the consumers.

Commission's comments

TPL should apprise Commission of the steps it has taken to create awareness amongst the consumers.

Directive 9: Delay in the release of new connections

TPL to conduct a study so as to understand to what extent the existing system could be loaded in order to avoid delay in releasing new connections.

Compliance

TPL has stated that it has submitted its compliance to the Commission and the same has been noted by the Commission. Further, TPL has submitted that it follows Commission's Regulations while processing the applications.

Commission's comments

The compliance is noted.

Directive 10: Awareness about Meter Testing

TPL should carry out awareness programs amongst its consumers about meter testing and the third party agencies authorized to perform the same.

Compliance

TPL carries out on-site meter testing along with third party on its own and will continue its efforts to enhance awareness amongst the consumers for the options available for third party meter testing.

Commission's comments

The compliance is noted

6.2 Fresh Directives

Directive 1: Own meter

The Commission directs TPL to give wide publicity to the procedure for having facility of own meter by consumers.

Directive 2: Cost of supply

The Commission directs TPL to submit cost of supply details for each consumer category separately.

Directive 3: Improvement of blending ratio

TPL is directed to submit steps it proposes to undertake to improve the blending ratio from the actual achievement of 58:42 in H1 FY 2009-10

Directive 4: SHR and fuel calorific value

The Commission directs TPL to estimate SHR on GCV basis and gross calorific value (GCV) of coal on as fired basis in future tariff petitions.

Directive 5: Cumulative depreciation on SLC financed assets

The Commission hereby directs TPL to maintain a separate cumulative account of depreciation on SLC financed assets which would show the accumulated depreciation on all SLC financed assets starting from the year FY 2008-09. TPL should subtract the accumulated depreciation of SLC assets from depreciation of total assets each year to estimate the amount of depreciation expense.



7 Wheeling Charges and Cross Subsidy Surcharge

The Commission, in order to compute the wheeling charges and cross subsidy surcharges, has considered TPL's allocation methodology between the wheeling and retail supply business. TPL has allocated the total ARR expenditure of TPL-D to wheeling and retail supply business considering that the distribution infrastructure up to the service line is part of the wheeling business, and the distribution infrastructure from service line to consumer premises is part of the retail supply business. The allocation matrix and the basis of allocation of various cost components of the ARR as considered by the Commission are shown below:

Table 254: Allocation matrix between wheeling and retail supply business

Cost component	Wheeling	Retail supply	Allocation basis
Power purchase	0%	100%	Entirely allocated to Retail Supply Business
Employee expenses	50%	50%	Allocated equally between wheeling and supply as the segregation based on employees is currently not available
A&G expenses	40%	60%	Expenses allocated to each of the functions based on the expenditure profile
R&M expenses	80%	20%	In the ratio of gross fixed asset value of the assets allocated to both businesses
Depreciation	80%	20%	In the ratio of gross fixed asset value of the assets allocated to both businesses
Interest on long term loans	80%	20%	In the ratio of gross fixed asset value of the assets allocated to both businesses
Interest on security deposit	0%	100%	Entirely allocated to Retail Supply Business
Interest on working capital	20%	80%	In the ratio of receivables for both the businesses
Provision for bad debts	0%	100%	Entirely allocated to Retail Supply Business
Contingency reserve	80%	20%	In the ratio of gross fixed asset value of the assets allocated to both businesses



Cost component	Wheeling	Retail supply	Allocation basis
Income tax	80%	20%	In the ratio of gross fixed asset value of the assets allocated to both businesses
Return on Equity	80%	20%	In the ratio of gross fixed asset value of the assets allocated to both businesses
Non-Tariff income	0%	100%	Entirely allocated to Retail Supply Business

Based on the approved ARR, the costs for wire business are computed as shown below:

Table 255: TPL-Ahmedabad ARR for FY 2010-11 allocated between wheeling and retail supply business

(Rs. crores)

Cost component	Ahmedabad area (FY 2010-11)		
	Total	Wheeling	Retail supply
Power purchase	1715.55	0.00	1715.55
Employee expenses	70.37	35.19	35.19
R&M expenses	82.25	65.80	16.45
A&G expenses	35.67	14.27	21.40
Depreciation	81.52	65.22	16.30
Interest on loans	61.12	48.89	12.22
Interest on security deposit	9.53	0.00	9.53
Interest on working capital	25.35	5.07	20.28
Return on equity	134.16	107.33	26.83
Provision for bad debts	2.14	0.00	2.14
Contingency reserve	0.60	0.48	0.12
Income tax	22.79	18.24	4.56
Less: Non-Tariff income	55.84	0.00	55.84
Net ARR	2185.22	360.48	1824.74

Table 256: TPL-Surat ARR for FY 2010-11 allocated between wheeling and retail supply business

(Rs. crores)



Cost component	Surat area (FY 2010-11)		
	Total	Wheeling	Retail supply
Power purchase	980.50	0.00	980.50
Employee expenses	37.84	18.92	18.92
R&M expenses	29.79	23.83	5.96
A&G expenses	27.69	11.08	16.61
Depreciation	41.09	32.87	8.22
Interest on loans	44.64	35.71	8.93
Interest on security deposit	8.51	0.00	8.51
Interest on working capital	22.26	4.45	17.81
Return on equity	75.39	60.32	15.08
Provision for bad debts	1.18	0.00	1.18
Contingency reserve	0.40	0.32	0.08
Income tax	12.81	10.25	2.56
Less: Non-Tariff income	19.82	0.00	19.82
Net ARR	1262.28	197.75	1064.54

7.1 Wheeling Charges

The wheeling charges worked out for 11 kV voltage level for the FY 2010-11 are given in the table below:

Table 257: Wheeling charges at 11 kV Voltage level

No.	Particulars	Ahmedabad area	Surat area
1	Energy input into 11 kV system (MU)	6250.47	3298.36
2	Total distribution cost - Wire business (Rs. crores)	360.48	197.75
3	Distribution cost for wheeling at 11 kV (HT) (Rs.crores) (at 30% of total distribution cost for wheeling)	108.14	59.32
4	Wheeling Charges at 11 kV (Paise/kWh) (3 / 1)	17	18

Accordingly, the Commission has approved the wheeling charges for FY 2010-11 of 17 paise/kWh for Ahmedabad area and 18 paise/kWh for Surat area. In addition 4% of



energy in kind will be deducted from the energy input towards assumed loss in EHT/HT network of Distribution Licensees.

The wheeling charges worked out for LT voltage levels for the FY 2010-11 for Ahmedabad and Surat areas are given in the table below:

Table 258: Wheeling charges at LT Voltage level

No.	Particulars	Ahmedabad area	Surat area
1	Energy input into 11 kV system (MU)	6250.47	3298.36
2	Losses in 11 kV system (at 4%) (MU)	250.02	131.93
3	Energy sales in 11 kV system (MU)	1615.06	239
4	Energy input into LT system (MU) [1-(2+3)]	4385.39	2927.35
5	Total distribution cost for Wire business (Rs. crores)	360.48	197.75
6	Distribution cost for wheeling at 11 kV (HT) (Rs.crores)	108.14	59.32
7	Distribution cost at LT voltage level (Rs. crores) (5-6)	252.33	138.42
8	Wheeling charges at LT voltage level (Paise/kWh)	58	47

In addition 4.75% of energy in kind will be deducted from the energy input towards assessed losses.

7.2 Cross Subsidy Surcharge

The Commission has decided to continue the Cross Subsidy Surcharge as determined in the MYT order dated 17th January, 2009 for FY 2010-11 and will review the same during the next control period.



COMMISSION'S ORDER

On the basis of Annual Performance Review the Commission approves the revised Aggregate Revenue Requirement for FY 2009-10 for TPL-G (APP), TPL-Ahmedabad and TPL-Surat as shown in the tables below:

Table 259: ARR of TPL-G (APP) approved by Commission for APR of FY 2009-10

(Rs. crores)

Particulars	Considered for APR of FY 2009-10
Total Variable Costs	650.14
Fixed Costs	
Employee Expenses	52.69
R&M Expenses	60.12
A&G Expenses	23.49
Depreciation	27.63
Interest on loans	7.59
Interest on Working Capital	27.23
Return on Equity	43.99
Income Tax	14.95
Total Fixed Costs	257.69
Gross ARR	907.84
Non-Tariff income	0.84
Net ARR	907.00



Table 260: ARR of TPL-Ahmedabad and TPL-Surat approved by Commission for APR of FY 2009-10

(Rs. crores)

Particulars	TPL-Ahmedabad	TPL-Surat
Total Power Purchase Costs	1501.17	963.56
Fixed Costs		
Employee expenses	66.38	35.70
R&M expenses	77.60	28.10
A&G expenses	33.65	26.12
Depreciation	69.83	37.48
Interest on loans	49.85	54.37
Interest on security deposit	9.32	8.21
Interest on working capital	21.85	21.98
Return on equity	123.21	70.31
Provision for bad debts	1.97	1.17
Contingency reserve	0.60	0.40
Income tax	20.93	11.95
Total Fixed Costs	475.20	295.78
Gross ARR	1976.37	1259.35
Non-Tariff income	51.17	19.00
Net ARR	1925.20	1240.35
Revenue	1971.32	1172.32
Gap / (Surplus)	(46.12)	68.02



The Commission approves the Aggregate Revenue Requirement for FY 2010-11 for TPL-G (APP), TPL-Ahmedabad and TPL-Surat as shown below:

Table 261: ARR of TPL-G (APP) approved by Commission for FY 2010-11

(Rs. crores)

Particulars	Revised Approved for FY 2010-11
Total Variable Costs	635.57
Fixed Costs	
Employee Expenses	55.85
R&M Expenses	53.12
A&G Expenses	24.90
Depreciation	29.49
Interest on loans	9.08
Interest on Working Capital	26.83
Return on Equity	46.35
Income Tax	15.76
Total Fixed Costs	261.37
Gross ARR	896.95
Non-Tariff income	1.50
Net ARR	895.45



Table 262: ARR of TPL-Ahmedabad and TPL-Surat approved by Commission for FY 2010-11

(Rs. crores)

Particulars	TPL-Ahmedabad	TPL-Surat
Total Power Purchase Costs	1715.55	980.50
Fixed Costs		
Employee expenses	70.37	37.84
R&M expenses	82.25	29.79
A&G expenses	35.67	27.69
Depreciation	81.52	41.09
Interest on loans	61.12	44.64
Interest on security deposit	9.53	8.51
Interest on working capital	26.03	22.86
Return on equity	134.16	75.39
Provision for bad debts	2.18	1.21
Contingency reserve	0.60	0.40
Income tax	22.79	12.81
Total Fixed Costs	526.23	302.23
Gross ARR	2241.77	1282.73
Non-Tariff income	55.84	19.82
Net ARR	2185.94	1262.91
Revenue at Proposed Tariff	2184.26	1210.33
Gap / (Surplus)	1.68	52.58



The Retail Supply Tariffs, Wheeling Charges and Cross Subsidy Surcharge for FY 2010-11 as approved by the Commission are provided in Chapter 8 and Chapter 7 respectively.

The order shall come into force with effect from 1st April 2010.

Sd/-

DR. P. K. MISHRA
Chairman

Sd/-

SHRI PRAVINBHAI PATEL
Member

Place: Ahmedabad

Date: 31st March, 2010



8 Tariff Schedule

TARIFF SCHEDULE EFFECTIVE FROM 1ST APRIL, 2010

(A) Tariff Schedule for Ahmedabad-Gandhinagar License area of Torrent Power Limited - Ahmedabad

TARIFF FOR SUPPLY OF ELECTRICITY

GENERAL CONDITIONS

1. This tariff schedule is applicable to all the consumers of TPL-Ahmedabad in Ahmedabad-Gandhinagar area.
2. All these tariffs for power supply are applicable to only one point of supply.
3. Meter charges shall be applicable as prescribed under GERC's (licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulation.
4. The energy supplied under these tariffs can be utilized only within the compact area of the premises not intervened by any area/road belonging to any person or authority other than the consumer.
5. Except in cases where the supply is used for purposes for which TPL-Ahmedabad has permitted lower tariff, the power supplied to any consumer shall be utilized only for the purpose for which supply is taken and as provided for in the tariff.
6. The charges specified in the tariff are on monthly basis, TPL-Ahmedabad shall adjust the rates according to billing period applicable to consumer.
7. The various provisions of the GERC's (licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulation will continue to apply.
8. Conversion of Ratings of electrical appliances and equipments from kilowatt to B.H.P. or vice versa will be done, when necessary, at the rate of 0.746 kilowatt equal to 1 B.H.P.
9. The billing of fixed charges based on contracted load or maximum demand shall be done in multiples of 0.5 (one half) Horse Power or kilo watt (HP or kW) as the case may be. The fraction of less than 0.5 shall be rounded to next 0.5. The billing of energy charges will be done on complete one kilo-watt-hour (kWh).
10. The Connected Load for the purpose of billing will be taken as the maximum load connected during the billing period.



11. Contract Demand shall mean the maximum kW for the supply of which TPL-Ahmedabad undertakes to provide facilities to the consumer from time to time.
12. Maximum Demand in a month means the highest value of average kW as the case may be, delivered at the point of supply of the consumer during any consecutive 15/30 minutes in the said month.
13. Payment of penal charges for usage in excess of contract demand/load for any billing period does not entitle the consumer to draw in excess of contract demand/load as a matter of right.
14. The Fixed charges, minimum charges, demand charges, meter rent and the slabs of consumption of energy for energy charges mentioned shall not be subject to any adjustment on account of existence of any broken period within billing period arising from consumer supply being connected or disconnected any time within the duration of billing period for any reason.
15. Prompt payment discount on the total bill excluding all types of levies, duties or taxes levied by the Government or any other competent authorities and meter rent but including fixed charges, energy charges and minimum charge shall be allowed at the 3% rate for tariff category 'Rate: RGP' and at 2% rate for all other tariff category except tariff category 'Rate :TS', provided that the bill is paid – (i) within 14 days of the date thereof for LT consumers and (ii) within 10 days of the date thereof for HT consumers, provided that no previous account is outstanding as on the date of the bill.
16. Fuel Price and Power Purchase Adjustment (FPPPA) charges shall be applicable in accordance with the formula approved by the Gujarat Electricity Regulatory Commission from time to time.
17. Statutory Levies: These tariffs are exclusive of Electricity Duty, Tax on Sales of Electricity, Taxes and other Charges levied/may be levied or such other taxes as may be levied by the Government or other Competent Authorities on bulk/retail supplies from time to time.



PART- I**SUPPLY DELIVERED AT LOW OR MEDIUM VOLTAGE
(230 VOLTS- SINGLE PHASE, 400 VOLTS- THREE PHASE, 50 HERTZ)****1. RATE: RGP**

Applicable to lights, fans and domestic appliances for heating, cooling, cleaning and refrigeration purposes in residential premises

Domestic Water-Pump exceeding 3 BHP rating will not be allowed under this tariff category.

1.1. FIXED CHARGE**For Other than BPL consumers**

(a)	Single Phase Supply	Rs. 5 per month per installation
(b)	Three Phase Supply	Rs. 15 per month per installation

For BPL household consumers*

(a)	Fixed Charges	Rs. 5 per month per installation
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1.2. ENERGY CHARGE**For Other than BPL consumers**

(i)	First 50 units consumed per month	280 Paise per Unit
(ii)	For the next 150 units consumed per month	320 Paise per Unit
(iii)	Remaining units consumed per month	405 Paise per Unit

For BPL household consumers*

(i)	First 30 units consumed per month	150 Paise per Unit
(ii)	For remaining units consumed per month	Rate as per RGP

** The consumer who wants to avail the benefit of the above tariff has to produce a copy of the Card issued by the authority concerned at the zonal office of the Distribution Licensee. The concessional tariff is only for 30 units per month.*



2. RATE: GLP

Applicable to lights, fans and appliances for heating, cooling, cleaning and refrigeration purposes in premises "other than residential" like premises used for charitable purposes like: public hospitals, dispensaries, educational and research institutions and hostels attached to such institutions, youth hostels run by Government, religious premises exclusively used for worship or community prayers, electric crematorium etc. Such premises should be in the use of 'Public Trust" as defined under section 2(13) of the Bombay Public Trust Act, 1950.

2.1. FIXED CHARGE

(a)	Single Phase Supply	Rs. 10 per month per installation
(b)	Three Phase Supply	Rs. 30 per month per installation

2.2. ENERGY CHARGE

(i)	First 200 units consumed per month	330 Paise per Unit
(ii)	Remaining units consumed per month	400 Paise per Unit

3. RATE: CGP / IGP

Applicable to lights, fans and appliances for heating, cooking, cleaning and refrigeration purposes in premises other than residential and those covered by the rate GLP, provided that the rating of individual appliance does not exceed 2 KWs. This rate is also applicable to supply for all purpose in cinema and theaters

3.1. FIXED CHARGE

(a)	Single Phase Supply	Rs. 30 per month per installation
(b)	Three Phase Supply	Rs. 75 per month per installation

3.2. ENERGY CHARGE

(i)	First 50 units consumed per month	370 Paise per Unit
(ii)	For the next 150 units consumed per month	405 Paise per Unit
(iii)	Remaining units consumed per month	495 Paise per Unit

4. RATE: LTP-1

Applicable to motive power installations upto and including 15 B.H.P. of connected load used for residential purposes and pumping stations run by local authorities.

4.1. FIXED CHARGE

Fixed Charge per BHP of Connected Load	Rs.20 per BHP per Month
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4.2. ENERGY CHARGE

A flat rate of	350 Paise per Unit
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5. RATE: LTP-2

Applicable to motive power installations upto and including 15 B.H.P. of connected load excluding installations for agricultural purposes and those covered under LTP-1 category.

5.1. FIXED CHARGE

(a)	For installations having Connected Load upto and including 5 BHP	Rs. 20 per BHP per Month
(b)	For installations having Connected Load more than 5 BHP and upto 15 BHP	Rs. 25 per BHP per Month

5.2. ENERGY CHARGE

A flat rate of	360 Paise per Unit
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6. RATE: LTP (AG)

Applicable to motive power installations for agricultural purposes

6.1. ENERGY CHARGE

A flat rate of	318 Paise per Unit
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6.2. MINIMUM CHARGE

Minimum Charge per BHP of Connected Load	Rs.10 per BHP per Month
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7. RATE: LTMD-1



Applicable to motive power installations above 15 B.H.P. of connected load used for residential purpose and pumping stations run by local authorities.

7.1. FIXED CHARGE

A. For Billing Demand upto and including Contract Demand

(a)	First 50 kW of Billing Demand per month	Rs. 70 per kW
(b)	Next 30 kW of Billing Demand per month	Rs. 90 per kW
(c)	Rest of Billing Demand per month	Rs.120 per kW

B. For Billing Demand in excess of the Contract Demand

Fixed Charge per kW of Billing Demand per month	Rs. 325 Per kW
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NOTE: The Billing Demand will be taken as under:

- i. The Maximum Demand recorded during the month OR
- ii. 85% of the Contract Demand OR
- iii. 6 KW

Whichever is the highest.

7.2. ENERGY CHARGE

i)	For Billing Demand upto and including 50 KW	360 Paise per unit
ii)	For Billing Demand above 50 KW	375 Paise per unit

7.3. POWER FACTOR ADJUSTMENT CHARGE

A. Where the average Power Factor during the Billing period exceeds 90%

For each 1% improvement in the Power Factor from 90% to 95%	Rebate of 0.15 Paise per Unit
For each 1% improvement in the Power Factor above 95%	Rebate of 0.27 Paise per Unit

B. Where the average Power Factor during the Billing period is below 90%

For each 1% decrease in the Power Factor below 90%	Penalty of 3.00 Paise per Unit
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8. RATE: LTMD-2



Applicable to motive power installations above 15 B.H.P. of connected load excluding installations for agricultural and those covered under LTMD-1 category.

8.1. FIXED CHARGE

A. For Billing Demand upto and including Contract Demand

(a)	First 50 kW of Billing Demand per month	Rs. 80 per kW
(b)	Next 30 kW of Billing Demand per month	Rs. 110 per kW
(c)	Rest of Billing Demand per month	Rs. 150 per kW

B. For Billing Demand in excess of the Contract Demand

Fixed Charge per kW of Billing Demand per month	Rs. 350 Per kW
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NOTE: The Billing Demand will be taken as under:

- i. The Maximum Demand recorded during the month OR
- ii. 85% of the Contract Demand OR
- iii. 6 KW

Whichever is the highest.

8.2. ENERGY CHARGE

i)	For Billing Demand upto and including 50 KW	375 Paise per unit
ii)	For Billing Demand above 50 KW	395 Paise per unit

8.3. POWER FACTOR ADJUSTMENT CHARGE

A. Where the average Power Factor during the Billing period exceeds 90%

For each 1% improvement in the Power Factor from 90% to 95%	Rebate of 0.15 Paise per Unit
For each 1% improvement in the Power Factor above 95%	Rebate of 0.27 Paise per Unit

B. Where the average Power Factor during the Billing period is below 90%

For each 1% decrease in the Power Factor below 90%	Penalty of 3.00 Paise per Unit
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9. RATE: STREET LIGHTS

Applicable to lighting systems for illumination of public roads.

9.1. ENERGY CHARGE

A flat rate of	330 Paise per Unit
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10. RATE: TS

Applicable to installations for temporary requirement of electricity supply.

10.1. FIXED CHARGE

Fixed Charge per Installation	Rs.14 per kW per Day
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10.2. ENERGY CHARGE

A flat rate of	400 Paise per Unit
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PART- II**SUPPLY DELIVERED AT HIGH VOLTAGE
(11000 VOLTS- THREE PHASE, 50 HERTZ)****11. RATE: HTMD**

Applicable for supply of energy to High Tension consumers contracting for maximum demand of 100 kW and above for purposes other than pumping stations run by local authorities

11.1. FIXED CHARGE

A. For Billing Demand upto and including Contract Demand

Fixed Charge per kW of Billing Demand per Month	Rs. 140 per kW
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B. For Billing Demand in excess of the Contract Demand

Fixed Charge per kW of Billing Demand per month	Rs. 275 per kW
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NOTE: The Billing Demand will be taken as under:

- i. The Maximum Demand recorded during the month OR
- ii. 85% of the Contract Demand OR
- iii. 100 KW

Whichever is the highest.

11.2. ENERGY CHARGE

i)	First 400 units consumed per kW of Billing Demand per Month	345 Paise per unit
ii)	Remaining Units consumed per Month	335 Paise per unit

11.3. TIME OF USE (TOU) CHARGE

For the Consumption during specified hours as mentioned here below:	
(i) For April to October period- 1200 Hrs. to 1700 Hrs. & 1830 Hrs. to 2130 Hrs.	
(ii) For November to March period- 0800 Hrs. to 1200 Hrs. & 1800 Hrs. to 2200 Hrs.	
(a) For Billing Demand upto 300 kW	50 Paise per Unit
(b) For Billing Demand Above 300 kW	70 Paise per Unit



11.4. POWER FACTOR ADJUSTMENT CHARGE

A. Where the average Power Factor during the Billing period exceeds 90%

For each 1% improvement in the Power Factor from 90% to 95%	Rebate of 0.15 Paise per Unit
For each 1% improvement in the Power Factor above 95%	Rebate of 0.27 Paise per Unit

B. Where the average Power Factor during the Billing period is below 90%

For each 1% decrease in the Power Factor below 90%	Penalty of 3.00 Paise per Unit
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12. RATE: HT PUMPING STATIONS

Applicable for supply of energy to Water and Sewage Pumping Stations run by local authorities and contracting for maximum demand of 100 kW and above.

12.1. FIXED CHARGE

A. For Billing Demand upto and including Contract Demand

Fixed Charge per kW of Billing Demand per Month	Rs. 140 per kW
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B. For Billing Demand in excess of the Contract Demand

Fixed Charge per kW of Billing Demand per month	Rs. 275 Per kW
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NOTE: The Billing Demand will be taken as under:

- i. The Maximum Demand recorded during the month OR
 - ii. 85% of the Contract Demand OR
 - iii. 100 KW
- Whichever is the highest.

12.2. ENERGY CHARGE

A flat rate of	315 Paise per unit
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12.3. TIME OF USE (TOU) CHARGE

For the Consumption during specified hours as mentioned here below- (i) For April to October period- 1200 Hrs. to 1700 Hrs. & 1830 Hrs. to 2130 Hrs. (ii) For November to March period- 0800 Hrs. to 1200 Hrs. & 1800 Hrs. to 2200 Hrs.	50 Paise per unit
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12.4. POWER FACTOR ADJUSTMENT CHARGE

A. Where the average Power Factor during the Billing period exceeds 90%

For each 1% improvement in the Power Factor from 90% to 95%	Rebate of 0.15 Paise per Unit
For each 1% improvement in the Power Factor above 95%	Rebate of 0.27 Paise per Unit

B. Where the average Power Factor during the Billing period is below 90%

For each 1% decrease in the Power Factor below 90%	Penalty of 3.00 Paise per Unit
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TARIFF SCHEDULE EFFECTIVE FROM 1ST APRIL, 2010
(B) Tariff Schedule for Surat License Area of Torrent Power Limited - Surat

TARIFF FOR SUPPLY OF ELECTRICITY AT LOW TENSION, HIGH TENSION AND
EXTRA HIGH TENSION

GENERAL CONDITIONS

- 1) This tariff schedule is applicable to all the consumers of TPL-Surat in Surat Area.
- 2) All these tariffs for power supply are applicable to only one point of supply.
- 3) Meter charges shall be applicable as prescribed under GERC's (licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulation.
- 4) The energy supplied under these tariffs can be utilized only within the compact area of the premises not intervened by any area/road belonging to any person or authority other than the consumer.
- 5) Except in cases where the supply is used for purposes for which TPL-Surat has permitted lower tariff, the power supplied to any consumer shall be utilized only for the purpose for which supply is taken and as provided for in the tariff.
- 6) The charges specified in the tariff are on monthly basis; TPL-Surat may decide the period of billing and adjust the rates accordingly.
- 7) The various provisions of the GERC's (licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulation will continue to apply.
- 8) Conversion of Ratings of electrical appliances and equipments from kilowatt to B.H.P. or vice versa will be done, when necessary, at the rate of 0.746 kilowatt equal to 1 B.H.P.
- 9) The billing of fixed charges based on contracted load or maximum demand shall be done in multiples of 0.5 (one half) Horse Power, kilo -Watt, kilo- Volt -Ampere (HP, kW, KVA), as the case may be. The fraction of less than 0.5 shall be rounded to next 0.5. The billing of energy charges will be done on complete 1.0 (one) kilo-watt-hour (kWh) or kilo-volt-ampere-hour (kVAh) or kilo-volt-ampere-reactive hour (kVArh), as the case may be.
- 10) Contract Demand shall mean the maximum kW for the supply of which TPL-Surat undertakes to provide facilities to the consumer from time to time.



- 11) Maximum Demand in a month means the highest value of average KVA or kW as the case may be, delivered at the point of supply of the consumer during any consecutive 15/30 minutes in the said month.
- 12) TPL-Surat may install KWh and kVAh meter for ascertaining power factor, reactive units and KWh units.
- 13) Payment of penal charges for usage in excess of contract demand/load for any billing period does not entitle the consumer to draw in excess of contract demand/load as a matter of right.
- 14) The Fixed charges, minimum charges, demand charges, meter rent and the slabs of consumption of energy for energy charges mentioned shall not be subject to any adjustment on account of existence of any broken period within billing period arising from consumer supply being connected or disconnected any time within the duration of billing period for any reason.
- 15) ToU charges wherever applicable unless other wise notified shall be levied for the energy consumption during the period between 07.00 hours and 11.00 hours; and between 18.00 hours and 22.00 hours, termed as PEAK HOURS. Night hours concession wherever applicable will be given for the energy consumption during the period between 22.00 hours and 06.00 hours next day, termed as 'OFF PEAK HOURS'.
- 16) Fuel Price and Power Purchase Adjustment (FPPPA) charges shall be applicable in accordance with the formula approved by the Gujarat Electricity Regulatory Commission from time to time.
- 17) Delay Payment Charges
 - a. No delay payment charges will be levied if the bill is paid on or before due date indicated in the bill.
 - b. Delay payment charges, if the bill is paid after due date, will be levied at the rate of 18% per annum (computed on daily basis) on the outstanding bill from the date of billing till the date of payment.
- 18) Statutory Levies:

These tariffs are exclusive of Electricity Duty, Tax on Sales of Electricity, Taxes and other Charges levied/may be levied or such other taxes as may be levied by the Government or other Competent Authorities on bulk/retail supplies from time to time.



PART-I**RATE SCHEDULE - LOW /MEDIUM TENSION
230/400 Volts****1. Rate: Residential**

This tariff shall be applicable to the services for the lights, fans, heating and small electrical appliances such as refrigerators, cookers, heaters, water pump and small motors having individual capacity not exceeding 2 BHP attached to domestic appliances in residential premises.

- a) Single phase supply (aggregate load up to 6 KW)
- b) Three phase supply (aggregate load including motor load exceeding 6 KW)

1.1 FIXED CHARGES: -**For Other than BPL consumers**

A	Single Phase Supply	Rs. 5.00 per installation per month
B	Three Phase Supply	Rs.15.00 per installation per month

For BPL household consumers*

A	Fixed Charges	Rs. 5.00 per month per installation
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PLUS**1.2 ENERGY CHARGES: -****For Other than BPL consumers**

i	First 50 units during the month	280 Paise/unit
ii	Next 50 units during the month	300 Paise/unit
iii	Next 150 units during the month	350 Paise/unit
iv	Above 250 units during the month	430 Paise/unit

For BPL household consumers*

i	First 30 units consumed per month	150 Paise per Unit
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ii	For remaining units consumed per month	Rate as per Residential
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* The consumer who wants to avail the benefit of the above tariff has to produce a copy of the Card issued by the authority concerned at the zonal office of the Distribution Licensee. The concessional tariff is only for 30 units per month.

2. Rate: Commercial

This tariff shall be applicable to services for lights, fans, heating and electrical appliances such as refrigerators, cookers, heaters, HVAC and small motors having individual capacity not exceeding 2 BHP attached to the appliances in Commercial Premises which are not covered in Residential and General.

- a. Single phase supply (aggregate load up to 6 KW)
- b. Three phase supply (aggregate load including motor load exceeding 6 KW)

2.1 FIXED CHARGES:

A	Single Phase Supply	Rs. 45.00 per installation per month
B	Three Phase Supply	Rs. 75.00 per installation per month

PLUS

2.2 ENERGY CHARGES:

i	First 50 units during the month	350 Paise/unit
ii	Next 50 units during the month	390 Paise/unit
iii	Next 100 units during the month	425 Paise/unit
iv	Next 300 units during the month	460 Paise/unit
v	Above 500 units during the month	495 Paise/unit

3. Rate: General



This tariff will be applicable for use of energy for lights, fans, heating, general load and motive power in premises: -

- i. Crematoriums and Government and Municipal Hospitals.
- ii. Charitable Institutions like hospital, dispensary, educational and Research Institute and Hostel attached to such Institution, religious premises exclusively used for worship or community prayers, registered with Charity Commissioner and specifically exempted from levy of general tax under section 2 (13) of Bombay Trust Act, 1950 read with section 9 of The Income Tax Act, 1961.
- iii. Public streets Lights, gardens and conveniences.
- iv. Water works and sewerage pumping services operated by Municipal Corporations.

Note: Halls or gardens or any portion of the above premises let out for consideration or used for commercial activities at any time shall be charged at Commercial tariff.

- a. Single phase supply (aggregate load up to 6 KW)
- b. Three phase supply (aggregate load including motor load exceeding 6 KW)

3.1 FIXED CHARGES:

A	Fixed Charges	Rs.20.00 per installation per month
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PLUS

3.2 ENERGY CHARGES:

i	Energy Charges	325 Paise/unit
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4. Rate: LTP

This tariff is applicable for aggregate contracted motive power load not exceeding 15 BHP.

4.1 FIXED CHARGES:

A	First 10 BHP	Rs.20/- Per BHP per month
B	Next 5 BHP	Rs.30/- Per BHP per month



4.2 ENERGY CHARGES:

i	For installations having connected load upto 10 BHP	345 Paise/unit
ii	For installations having connected load above 10 BHP and upto 15 BHP	365 Paise/unit

4.3 MINIMUM BILL per installation per month (excluding meter charges):

(a)	For the Contracted load	Rs 100/- per BHP per month
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Note:

- a. The minimum charges specified above should be payable only if fixed charges and Energy Charges fall short by minimum billed amount.

5. Rate: LTMD

This tariff shall be applicable to consumers using electricity for motive power services with contracted load above 15 HP and upto 125 HP

5.1 DEMAND CHARGES:

A	Up to 20 KVA of billing demand	Rs. 30/- per KVA/month
B	Above 20 KVA & up to 50 KVA billing demand	Rs. 50/- per KVA/month
C	Above 50 KVA & up to 60 KVA billing demand	Rs. 60/- per KVA/month
D	Above 60 KVA of billing demand	Rs.70/- per KVA/month
E	In excess of contract demand	Rs. 180/- per KVA/month

Note: BILLING DEMAND: - Billing demand during the month shall be the highest of the following:

- i) Maximum demand recorded during the month.



- ii) 85 % of the contract demand.
- iii) 6 KVA

PLUS

5.2. ENERGY CHARGES:

i	Energy charges	390 Paise/unit
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PLUS

5.3 REACTIVE ENERGY CHARGES (KVARH units):

For installation having contracted load of 50 HP and above

(a)	For all the reactive units drawn during the month	10 Paise/kVARh
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6. Rate: TS- Temporary Supplies:

6.1 ENERGY CHARGES:

i	Energy Charges	490 Paise/ unit
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7. Rate: AGP

This tariff is applicable to motive power services used for irrigation purpose.

The rates for following group are as under

7.1 FIXED CHARGES:

A	Fixed Charges	Rs. 10.00 per BHP per month
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PLUS

7.2 ENERGY CHARGES:

i	Energy Charges	50 Paise/unit
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Note:



1. The agricultural consumers shall be permitted to utilize one bulb up to 40 watts in the Pump House without recovering any charges. Any further extension or addition of load will amount to unauthorized extension.
2. No machinery other than pump for irrigation will be permitted under this tariff.



PART-II
RATE SCHEDULE FOR SERVICE AT HIGH TENSION

8 Rate HTMD-1

This tariff shall be applicable for supply of energy to consumers at 3.3 KV and above for contracting the demand of 100 KVA and above for purposes other than pumping stations run by Local Authorities.

8.1. DEMAND CHARGES:**8.1.1. For billing demand up to contract demand**

A	First 500 KVA of billing demand	Rs 100/-per KVA
B	Above 500 KVA	Rs 130/- per KVA

8.1.2. For billing demand in excess over contract demand

For billing demand in excess over contract demand	Rs.360/- per KVA
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Note: BILLING DEMAND: Billing demand shall be the highest of the following: -

- a. Actual maximum demand established during the month
- b. 85 per cent of the Contract Demand, and
- c. 100 KVA

PLUS**8.2. ENERGY CHARGES:**

i	First 400 units per kVA billing demand per month	390 Paise/unit
ii	Remaining units consumed per month	380 Paise/unit

PLUS**8.3. TIME OF USE CHARGE:**

(These charges shall be levied from a consumer having contract demand or actual demand of 500 KVA and above)

For energy consumption during the two peak periods, viz, 0700 Hrs to 1100 Hrs and 1800 Hrs to 2200 Hrs.	70 paise per unit
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PLUS

8.4. POWER FACTOR:

8.4.1. Power Factor Adjustment Charges: -

a) The power factor adjustment charges shall be levied at the rate of 1% on the total amount of electricity bills for the month under the head "Energy Charges " for every 1% drop or part thereof in the average power factor during the month below 90% up to 85 %.

b) In addition to the above clause, for every 1% drop or part thereof in average power factor during the month below 85% at the rate of 2% on the total amount of electricity bill for that month under the head "Energy Charges ", will be charged.

8.4.2. Power Factor Adjustment Rebate: -

If the average power factor of the consumer's installation in any month is above 95%, the consumer will be entitled to a rebate at the rate of 1% in excess of 95% power factor on the total amount of electricity bill for that month under the head "Energy Charges ", for every 1% rise or part thereof in the average power factor during the month above 95%.

8.5. LIGHTING AND NON-INDUSTRIAL LOADS:

The consumption of lights and fans and other non-industrial loads of the factory building as also the consumption of crèche, laboratory, stores, timekeeper's Office, yards, watch and ward, first aid centers, and dispensaries during a month registered at the main meter on HT side shall be charged at the energy charges specified above.

8.6. NIGHT TIME CONCESSION: -

The energy consumed during night hours between 22.00 hours and 06.00 hours next day (recorded by the tariff meter operated through time switch or built in feature of time segments, if incorporated) as is in excess of one third of total energy consumed during the month, shall be eligible for concession of 50 Paise per KWH. The meter and time switch shall be procured and installed by



consumer at his cost, if required by TPL-Surat. In such case, TPL-Surat will seal the metering equipment.

8.7. REBATE FOR SUPPLY AT EHV:

Sr. No.	On Energy Charges:	Rebate @
(a)	If supply is availed at 33/66 KV	0.5 %
(b)	If supply is availed at 132 KV and above	1.0 %

9 Rate: HTMD-2

This tariff shall be applicable for supply of energy at 3.3KV and above and contracting for demand of 100 KVA and above for water works and pumping stations run by Local Authorities.

9.1. DEMAND CHARGES:

9.1.1. For billing demand up to contract demand

A	First 500 KVA of billing demand	Rs. 80/- per KVA per month
B	Next 500 KVA of billing demand	Rs. 110/- per KVA per month
C	Above 1000 KVA of billing demand	Rs 125/- per KVA per month

9.1.2. For billing demand in excess of contract demand

a) For Billing demand in excess over Contract demand	b) Rs. 335/- per KVA per month
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Note: BILLING DEMAND: Billing demand shall be the highest of the following: -

- Actual maximum demand established during the month
- 85 per cent of the Contract Demand, and
- 100 KVA



PLUS

9.2. ENERGY CHARGES:

i	Up to 1000 KVA	385 Paise/unit
ii	Above 1000 KVA	390 Paise/unit

PLUS

9.3. TIME OF USE CHARGES:

(These charges shall be levied from a consumer having Contract Demand or actual demand of 500 KVA and above)

For energy consumption during the two peak periods, viz 0700 Hrs to 1100 Hrs and 1800 Hrs to 2200 Hrs	70 paise per unit
--	-------------------

PLUS

9.4. POWER FACTOR:**Power Factor Adjustment Charges: -**

1. The power factor adjustment charges shall be levied at the rate of 1% on the total amount of electricity bills for the month under the head "Energy Charges " for every 1% drop or part thereof in the average power factor during the month below 90% up to 85 %.
2. In addition to the above clause, for every 1% drop or part thereof in average power factor during the month below 85% at the rate of 2% on the total amount of electricity bill for that month under the head "Energy Charges ", will be charged.

Power Factor Adjustment Rebate: -

If the average power factor of the consumer's installation in any month is above 95%, the consumer will be entitled to a rebate at the rate of 1% in excess of 95% power factor on the total amount of electricity bill for that month under the



head "Energy Charges ", for every 1% rise or part thereof in the average power factor during the month above 95%.

9.5. NIGHT TIME CONCESSION: -

The energy consumed during night hours between 22.00 hours and 06.00 hours next day (recorded by the tariff meter operated through time switch or built in feature of time segments, if incorporated) as is in excess of one third of total energy consumed during the month, shall be eligible for concession of 50 Paise per KWH. The meter and time switch shall be procured and installed by consumer at his cost, if required by TPL-Surat. In such case, TPL-Surat will seal the metering equipment.

9.6. REBATE FOR SUPPLY AT EHV:

Sr. No.	On Energy Charges:	Rebate @
(a)	If supply is availed at 33/66 KV	0.5 %
(b)	If supply is availed at 132 KV and above	1.0 %

10 Rate- NTCT (NIGHT TIME CONCESSIONAL TARIFF)

This is nighttime concessional tariff for consumers for regular power supply who opt to use electricity **EXCLUSIVELY** during night hours between 22.00 hours and 06.00 hours next day. The consumer shall provide the switching arrangement as shall be acceptable to TPL-Surat to regulate supply hours.

- a) Fixed Charges: 30 % of the fixed/demand charge
(Under the relevant tariff)

PLUS

Energy Charge: 310 Paise per KWH



9 Annexure

9.1 Computation of Variable Cost of Generation

9.1.1 Coal based stations

**Table 263: Computation of Variable Cost of Generation for coal based stations for
FY 2009-10**

Particulars	Coal Based stations (FY 2009-10)			
	Station C	Station D	Station E	Station F
Share of coal - Indigenous (%)	72.00%	72.00%	72.00%	72.00%
Share of coal - Imported (%)	28.00%	28.00%	28.00%	28.00%
Effective CV of coal (kCal/kg)	5150.04	5150.04	5150.04	5150.04
Overall Heat (Giga Cal)	1639775	2470525	2410625	2449803
Heat from Oil (Giga Cal)	997	2175	1982	1988
Heat from Coal (Giga Cal)	1638778	2468350	2408643	2447816
Actual oil consumption (kg)	102138	222661	202961	203534
Actual Coal Consumption (MT)	318207	479288	467694	475300
Indigenous coal (MT)	232362	349987	341521	347075
Imported coal (MT)	89098	134201	130954	133084
Indigenous coal cost (Rs. lakhs)	6406	9649	9416	9569
Imported coal cost (Rs. lakhs)	2704	4073	3974	4039
Total coal cost (Rs. lakhs)	9110	13722	13390	13608
Total oil cost (Rs. lakhs)	18	40	37	37
Total fuel cost (Rs. lakhs)	9129	13762	13427	13645
Per unit cost of Gross generation (Rs/kWh)	1.97	1.36	1.46	1.47
Per unit cost of Net generation (Rs/kWh)	2.17	1.48	1.59	1.61



**Table 264: Computation of Variable Cost of Generation for coal based stations for
FY 2010-11**

Particulars	Coal Based stations (FY 2010-11)			
	Station C	Station D	Station E	Station F
Share of coal - Indigenous (%)	72.00%	72.00%	72.00%	72.00%
Share of coal - Imported (%)	28.00%	28.00%	28.00%	28.00%
Effective CV of coal (kCal/kg)	4991.00	4991.00	4991.00	4991.00
Overall Heat (Giga Cal)	1475341	2123450	2408918	2417321
Heat from Oil (Giga Cal)	10109	9353	19080	9573
Heat from Coal (Giga Cal)	1465232	2114097	2389838	2407748
Actual oil consumption (kg)	977158	904127	922165	925382
Actual Coal Consumption (MT)	293575	423582	478830	482418
Indigenous coal (MT)	214375	309309	349652	352273
Imported coal (MT)	82201	118603	134072	135077
Indigenous coal cost (Rs. lakhs)	5910	8528	9640	9712
Imported coal cost (Rs. lakhs)	2495	3600	4069	4100
Total coal cost (Rs. lakhs)	8405	12127	13709	13812
Total oil cost (Rs. lakhs)	176	163	166	167
Total fuel cost (Rs. lakhs)	8582	12290	13875	13979
Per unit cost of Gross generation (Rs/kWh)	1.83	1.42	1.57	1.58
Per unit cost of Net generation (Rs/kWh)	2.02	1.56	1.72	1.73



9.1.2 Gas based station (Vatva)

Table 265: Computation of Variable Cost of Generation for Vatva

Particulars	Vatva	
	FY 2009-10	FY 2010-11
Heat from Gas (Giga Cal)	1544225	1688869
Actual Gas Consumption (Mn SCM)	186	183
Total Gas cost (Rs. lakhs)	15052	14831
Per unit cost of Gross generation (Rs/kWh)	1.87	1.90
Per unit cost of Net generation (Rs/kWh)	1.92	1.96



9.2 List of Organizations and Individuals who filed objections / suggestions

- | | |
|----|--|
| 1 | Consumer Education and Research Society |
| 2 | Grahak Suraksha And Pagla Samiti |
| 3 | Consumer Protection and Action Committee |
| 4 | Akhil Gujarat Grahak Seva Kendra |
| 5 | Sh. Kirit J. Mekwan And Sh. Amarsinh Chavda |
| 6 | Sh. Rohitbhai J. Patel |
| 7 | Sh. Ambalal K. Patel |
| 8 | Sh. Balkrishna P. Vaghela |
| 9 | Sh. Sunil B Oza |
| 10 | Utility users Welfare Association |
| 11 | Senior Citizen Forum |
| 12 | Baner Industrial Estate Owner Association |
| 13 | Surat Municipal Corporation |
| 14 | Sh. Mahadeobhai I. Desai |
| 15 | Sh. Maheshkumar Bhikhibhai Desai and other 42 from Surat |

9.3 List of participants in Public Hearing

- | | |
|-----|---|
| 1. | Consumer Education and Research Society |
| 2. | Grahak Suraksha And Pagla Samiti |
| 3. | Sh. Kirit J. Mekwan And Sh. Amarsinh Chavda |
| 4. | Sh. Rohitbhai J. Patel |
| 5. | Sh. Ambalal K. Patel |
| 6. | Sh. Balkrishna P. vaghela |
| 7. | Sh. Sunil B Oza |
| 8. | Utility users Welfare Association |
| 9. | Senior Citizen Forum |
| 10. | Baner Industrial Estate Owner Association |
| 11. | Surat Municipal Corporation |
| 12. | Sh. Mahadeobhai I. Desai |
| 13. | Consumer Protection and Action Committee |

